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WOOD CARVING MADE EASY



A Wood Carver in the Schools, Berchtesgaden, Germany
The American tourist will recognize in the small figures being carved,
art objects for the tourist trade

Copyright, 1936, 1940
The Bruce Publishing Company
Printed in the U. S. A.
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PREFACE

Having waited for a number of years for someone else to write this book, it has become apparent that evidently no one is going to undertake the task. The kind of book hoped for was one in which the subject would be broken down into a sufficient number of units, and these so graded and organized as to make the approach to the subject such that it might be undertaken by the rankest of amateur craftsmen; by office workers and professional men in off hours in basement shops; by public schools; by craft clubs and guilds; and by such others, who may feel moved to create beautiful things in wood.

The material used in this book, has been used experimentally first in evening schools, then in classes in the public schools, and finally by the publication of some of the basic material in a series of magazine articles which appeared during the months of November, 1933, to August, 1934, in *Industrial Arts and Vocational Education*. This publication has served the purpose of showing the need for the material and its practical use. The publication also has called forth many interesting letters from boy's clubs, Y.M.C.A. camps, schools, and many lone-wolf craftsmen. This experience has enabled the work to be still further simplified and made more practical. The objective which the writer has in mind is to realize the ambition of a book that can really wear with ease and truth the title *Wood Carving Made Easy*.

Persons undertaking to do carving are advised to follow the work as it is presented, working out the simplest forms first. The difficulty with many of the old books on carving was that they shoved the beginner off at the deep end, and too many floundered about a while and gave up the struggle. The material in this book is presented in what seems to be its most logical sequence. It seems better to let an art, such as carving, come along in its natural development, and let the student gain confidence

by his successes, taking heart for more difficult tasks by the delight and satisfaction in the things he already has been able to accomplish.

Very few of the persons who have undertaken to learn how to carve from the directions contained in this book, have had previous experience. Yet, the results achieved, in most cases, have been pleasing and satisfactory. This may probably be traceable to the fact that the public schools, by their teaching of industrial arts over a period of a score and more years, have made possible a new generation that turns naturally and easily to art in craftsmanship when opportunity offers.

Carving doubtlessly is older than painting or drawing. The efforts of primitive people to express themselves by sculpture, in mud, stone, wood, and other materials, required far less ability and knowledge than do attempts to set down these same ideas on a plane surface by means of line drawing, color, and shading. The untutored folk of the early ages of man's development found it easier to duplicate real things in shape and form, and with greater truth and detail by modeling and sculpture than by drawing. The latter method of representation requires abstract thought and some notion of symbolizing ideas before it can be applied. Carving, then, may be said to be not only the oldest of the arts, but also the most *natural*. It blossomed and came into a degree of fruition earlier than the other arts. Upon these facts, too, may doubtless be based the reason for the native ability that many persons have for modeling forms, shapes, and ideas, in plastic materials. It certainly is a fact that it is easier for a larger number of people to express themselves by graphic representation in plastic mediums than by pictorial representation on a flat surface.

The decline of wood carving in modern decorative schemes is undoubtedly due to the fact that it does not readily yield itself to commercial machine production at small cost. The best wood carving still requires the individual touch of the creative artist. As men have more and more leisure at their command we may confidently expect to see a revival of the arts, and among these it will doubtlessly be true that the fine old art of wood carving will see a new renaissance among amateur craftsmen whose avocational interests lie along these lines.

It has not been possible in this text to offer as large a number of actual projects as desired, upon which the student may work. To devote more space to this feature would make this book too voluminous. A large number of suggestive designs for carving, however, have been given in each chapter. It will be understood, of course, that many of these designs are adapted to use in other forms of carving than that under which they are listed, and that by the necessary changes many of them are just as usable under one form of carving as under another. The student must learn to adapt his designs to suit his needs and to select for himself such types of decoration as are in harmony with the kind of furniture or other projects upon which he may wish to work.

Since the book is for beginners, it goes but little into the teaching and study of design or the analysis of masterpieces of wood carving. Neither is a great amount of space given to the teaching of tool technique. The several chapters, however, contain sufficient information for the needs of the beginner. More would likely result in confusion of an art that comes more naturally from practice than from the printed page.

J. I. SOWERS

Miami, Florida, 1936

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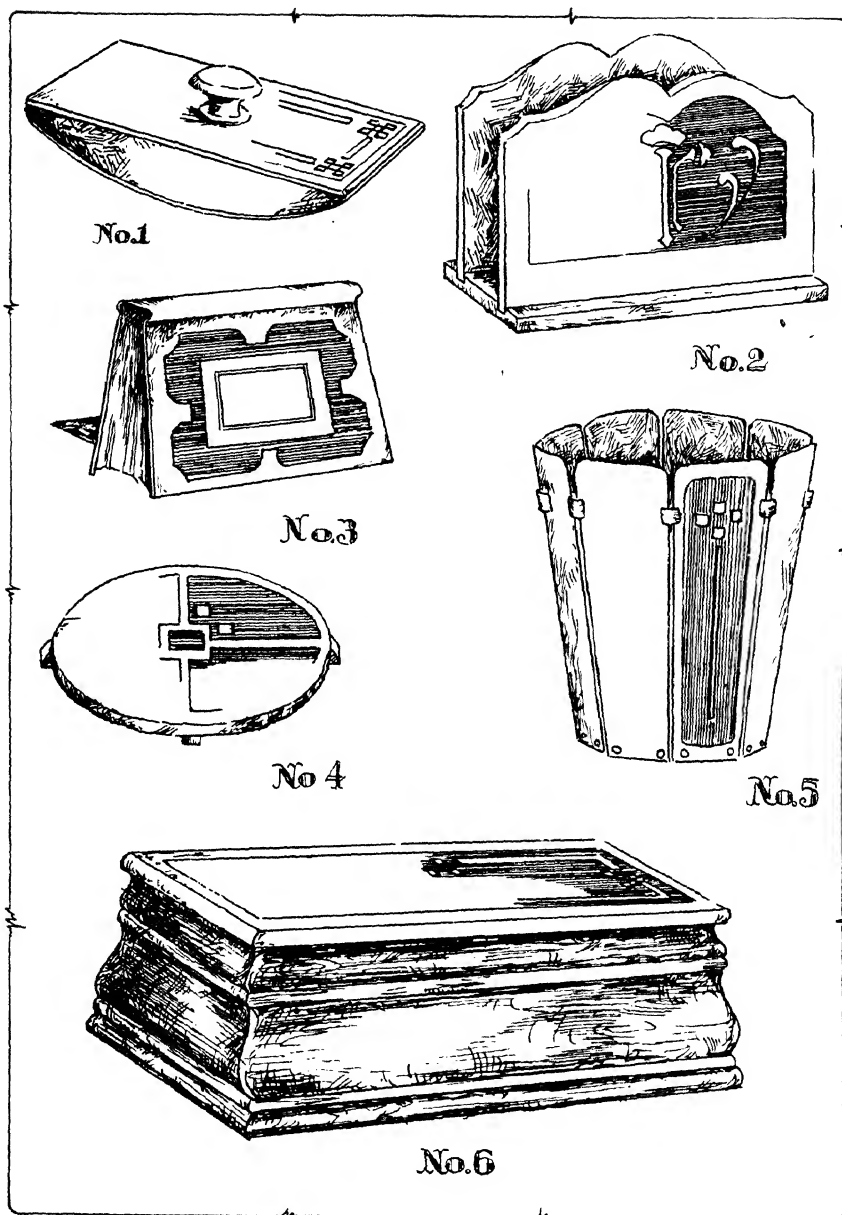


Fig. 1. Incising applied to simple projects in beginning woodwork

Chapter I

INCISED CARVING

This is the simplest form of wood carving, yet it is of sufficient decorative value to add interest to many and varied projects, from the simple work of an early grade of school shopwork to excellent examples of craftsmanship. Incising may be used both with and without a developed background. In his first attempts, the student will do well to merely incise the design, making no attempt to develop the background, as shown in the blotter pad in No. 1, Figure 1. After the design is incised, it may be stained in harmonious colors, contrasting with the background, which is finished in a lighter color or a lighter tone of the same color.

Figure 2 shows all the cutting tools necessary to do any of the work described in this chapter. The hook-bill knife (A) is better

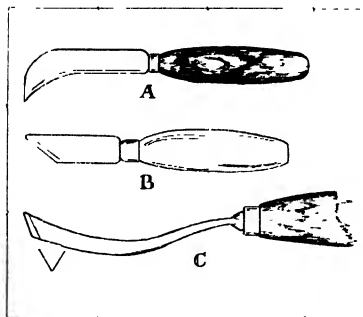


Fig. 2. Tools used in incising

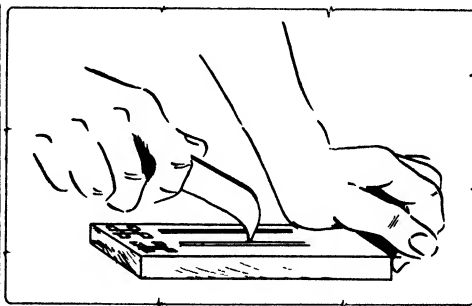


Fig. 3. The first cut in incising a design

than the sloyd knife (B) for this type of work, but if the shop is equipped with the latter, it will serve and will be of more general use for later work.

Figure 3 shows the first cut. The knife is held straight and a cut to the depth of about $\frac{1}{16}$ in. is made right on the line. The knife is then slanted about 15 degrees and another cut is made

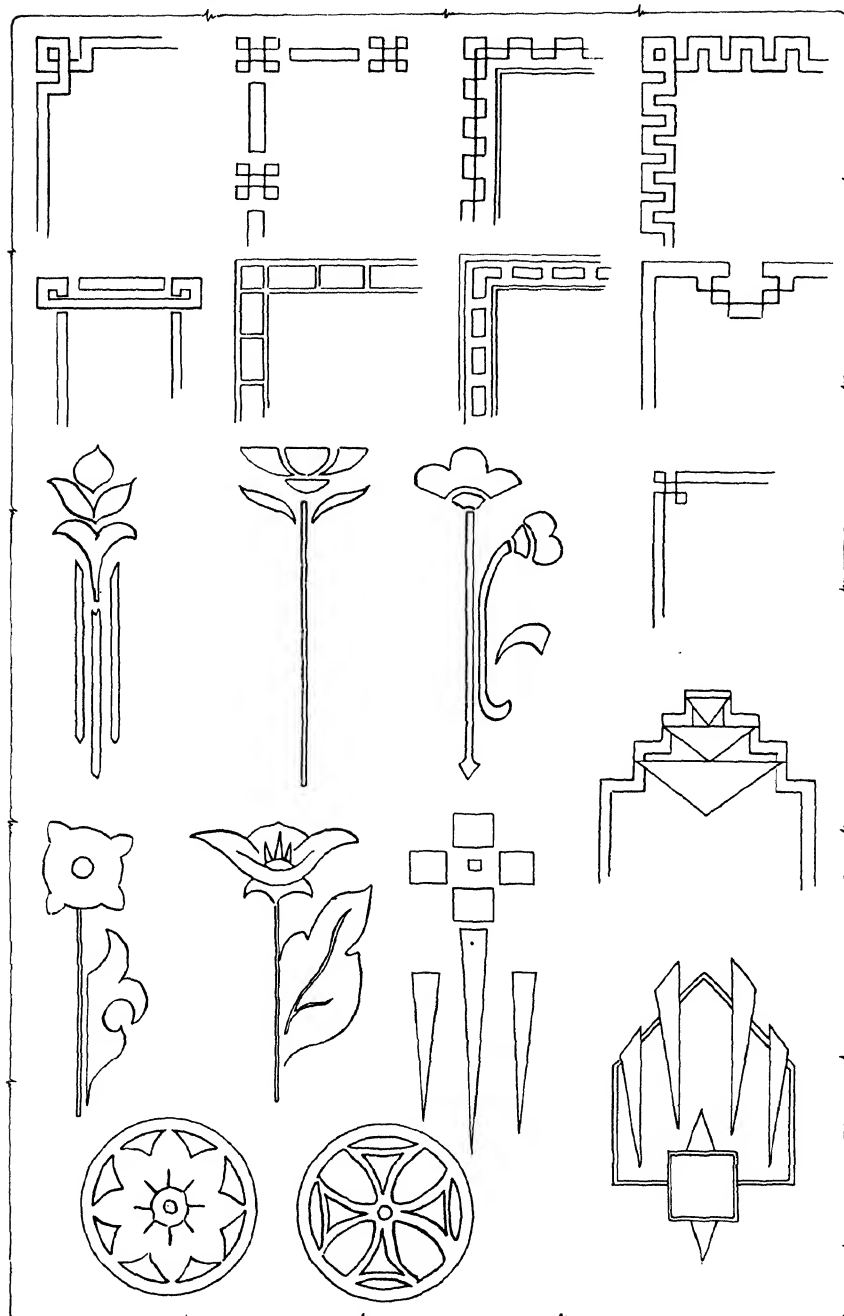


Fig. 4. Suggested designs for use in incised carving

just outside the line, away from the inside of the design, thus removing a small hairlike sliver of wood. This small incision sets off the design from the surrounding background, and need be only wide and deep enough to prevent the stain used in outlining the design from being absorbed into the background. Water-color stain may be used on this work, instead of oil stain, as the latter tends to creep over the design and spoil the clear-cut lines of the work.

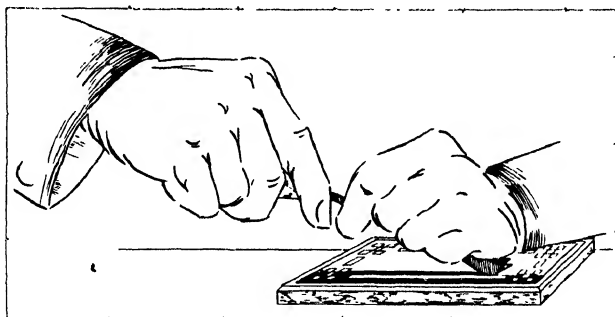


Fig. 5. "Threading-in" the background with a V tool

Figure 4 offers a number of suggestive designs which may be modified in many ways as to size and shape to conform to the space they are to occupy. These designs will suggest others, as the field is practically unlimited, but in this type of carving only *line* designs can be used.

Having made some of this work in simple line design without a background, the student now is ready to work up similar projects with a design having a background, which may be one of two kinds — the *threaded-in* or the *stippled* background. The threaded-in background is the most desirable, and should be used in all work except that in which the design is so delicate and complicated as to make threading-in difficult.

Threading-in is best done with the V tool shown at C, Figure 2. A piece of work of this kind is shown in Figure 5 which also shows the method of controlling the tool. However, since this tool is difficult to sharpen, it is suggested that beginners use the homemade tool shown in Figure 6 for threading-in work in soft wood. Such a tool cannot be purchased, but it can easily be made in the school shop. Figure 1 shows several articles com-

monly made in most school shops, with the threading-in of the background along parallel lines running with the grain. This is the only way in which the tool in Figure 6 can be used; with the V tool, however, the threading-in may be done either with or across the grain of the wood.

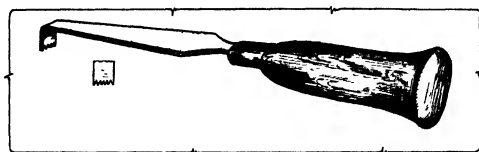


Fig. 6. Tool for combing in a threaded background

Figure 7 shows a punch for stippling the background. This punch may be purchased, or it may be made from a piece of soft steel. When working up a background, the punch must be turned from one position to another with each stroke so as not to make its own pattern apparent. If the finished background

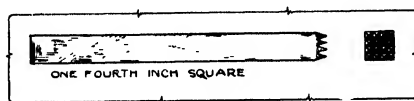


Fig. 7. Punch for stippling background

appears as in Figure 8, with a mingled, unobtrusive effect, it is correct, but if it looks as if someone had stepped on it with a new rubber overshoe, it is not well done.

A simple object to make is the door stop, Figure 8. The initials on this door stop belong to the boy who made it. Figure 13 is an Old-English alphabet, the letters of which are suitable for decorating such objects. In schoolwork the privilege of cutting the *initials* on this finished piece may be offered as reward to boys whose work grades 90 or above.

Figure 9 shows three interesting designs and shapes for a letter holder. Figure 9a is the finished piece of work. This, of course, is made in soft wood and the background may be threaded-in with the tool shown in Figure 6.

When the background is developed by threading-in or by stippling, it is no longer necessary to use a water stain, as in the first project, and the whole may be covered with an oil stain.

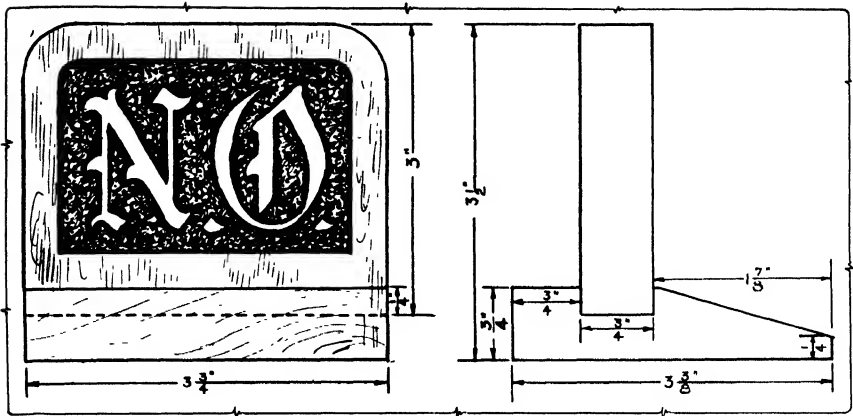


Fig. 8. A doorstop with a stippled background

The background, being rough, will absorb more stain than the surface of the design, so that the design will show up several tones lighter, thus producing a two-tone effect. This is often more desirable than the use of a two or more color effect. The design also may be highlighted, if desired, by rubbing off some of the stain before it is dry, or by rubbing the surface when dry with fine steel wool.

Figures 10 and 11 are book ends with silhouette designs. One is incised with a threaded-in background, and the other — because it has a rather intricate pattern — has a stippled background. Figure 10 is a static design of modernistic type. Being pyramidal in shape, it suggests strength and rigidity. The figure used on such a design must be suitable to its shape and the idea it suggests. Figure 11 expresses rhythm of movement, since both the shape of the project and the design conform to this idea and are in harmony with it.

The designs on these book ends are profiles such as would be cast by shadows upon a screen, and to be effective they should be stained with an ebony stain, or they may be painted dull black and then rubbed to a smooth dull finish with very fine steel wool. The background should remain the natural color of the wood, finished with a wash coat of light shellac, or stained with a *very light* tint. The making of silhouettes by incised carving results in some excellent decorative effects, and will repay careful practice and study of the best methods of procedure.

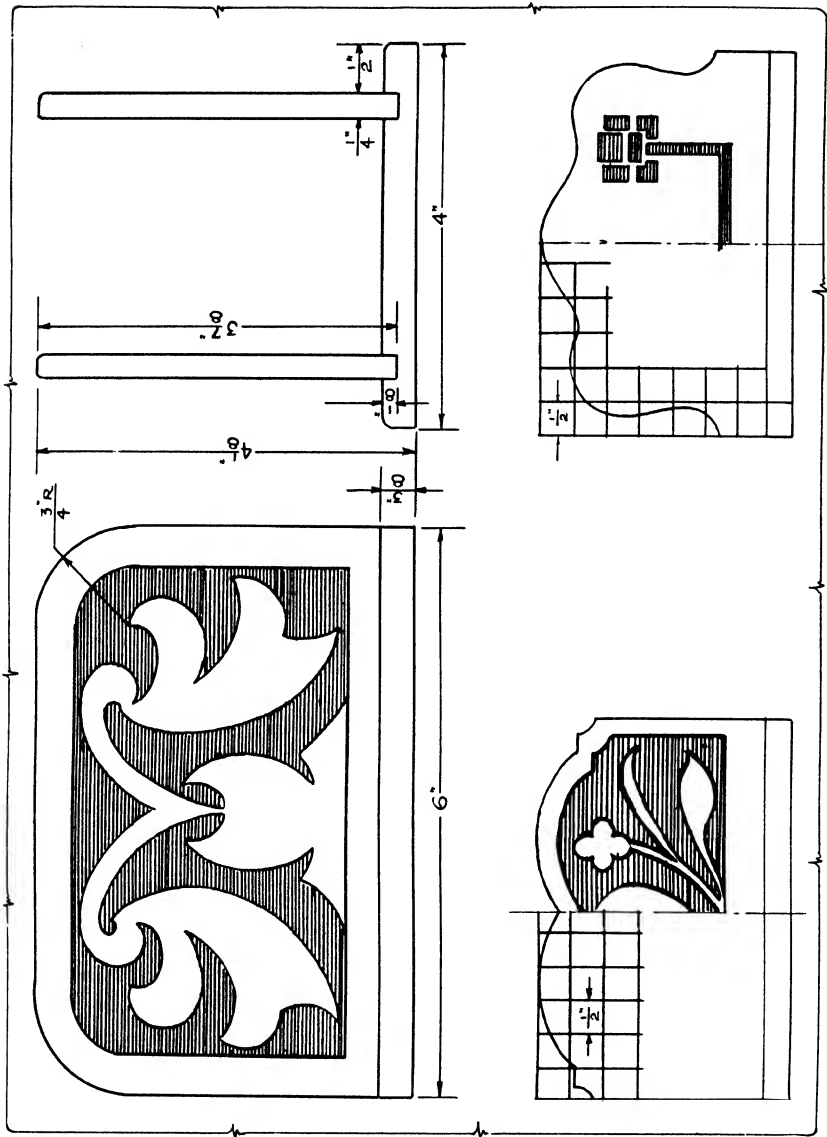


Fig. 9. A letter holder with an incised design

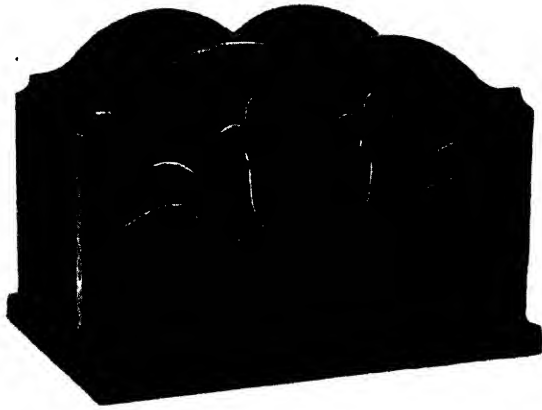


Fig. 9a. Finished letter holder

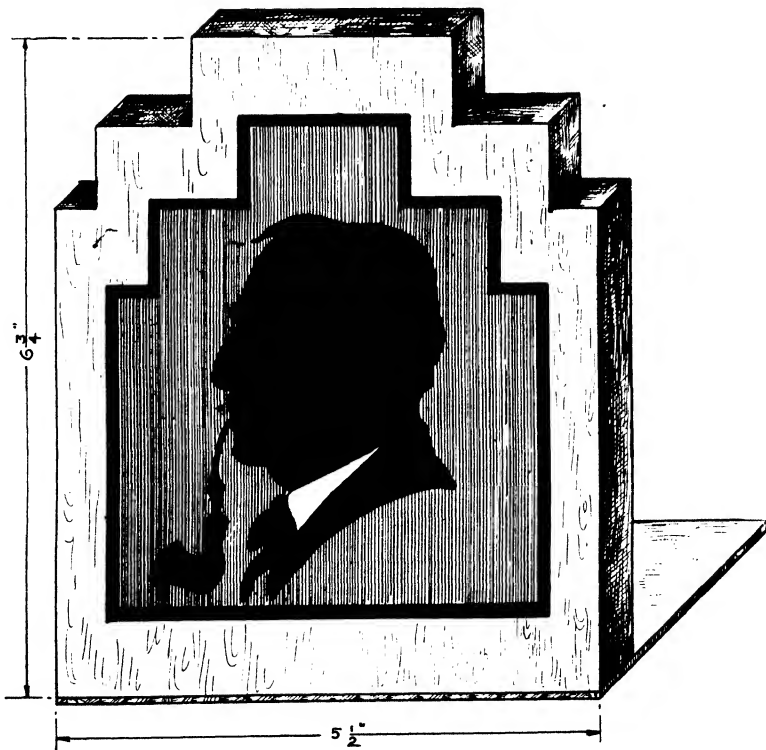


Fig. 10. A modernistic book end with silhouette design

Silhouettes are not difficult to make for anyone who is able to sketch, and the profile of a friend or a well-known person forms an interesting decoration for book ends of this kind.



Fig. 11. A silhouette design on a book end

Figure 12 shows the possibilities of incised carving on a project of more elaborate design. The project shown may be used as a console table, radio table, or for dressing up a front hall. No matter where it is used, it is a beautiful piece of work if well done. The drawings are self-explanatory. In turning, the workman should be careful that his lines are clean-cut, that the shape of the piece is clearly defined, and that the edges intended to be sharp are not rounded. Too much sanding may easily spoil a good piece of turning. This table will require many hours of careful, painstaking work. Every part of it should represent the workman's best effort. But little stock is required for this table. It is, therefore, advisable to select a wood that will show up the

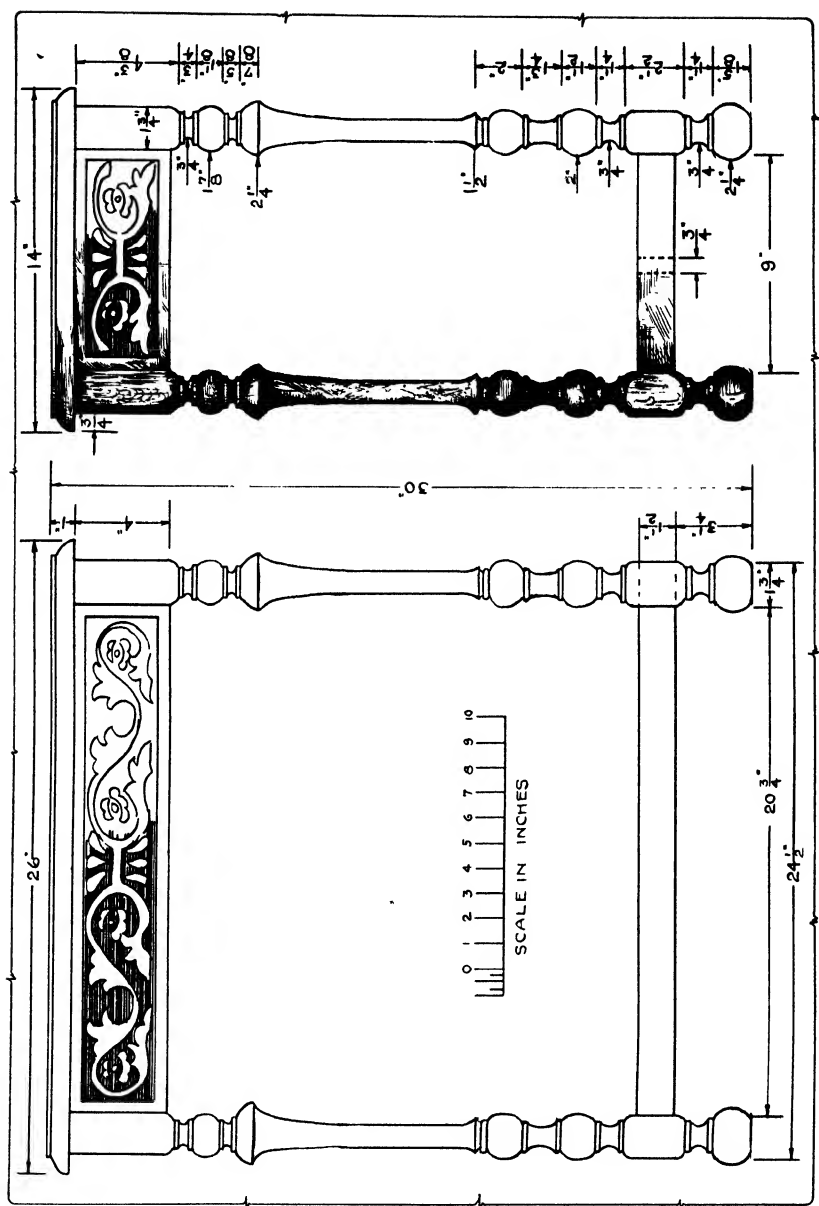


Fig. 12. A console table with incised carving

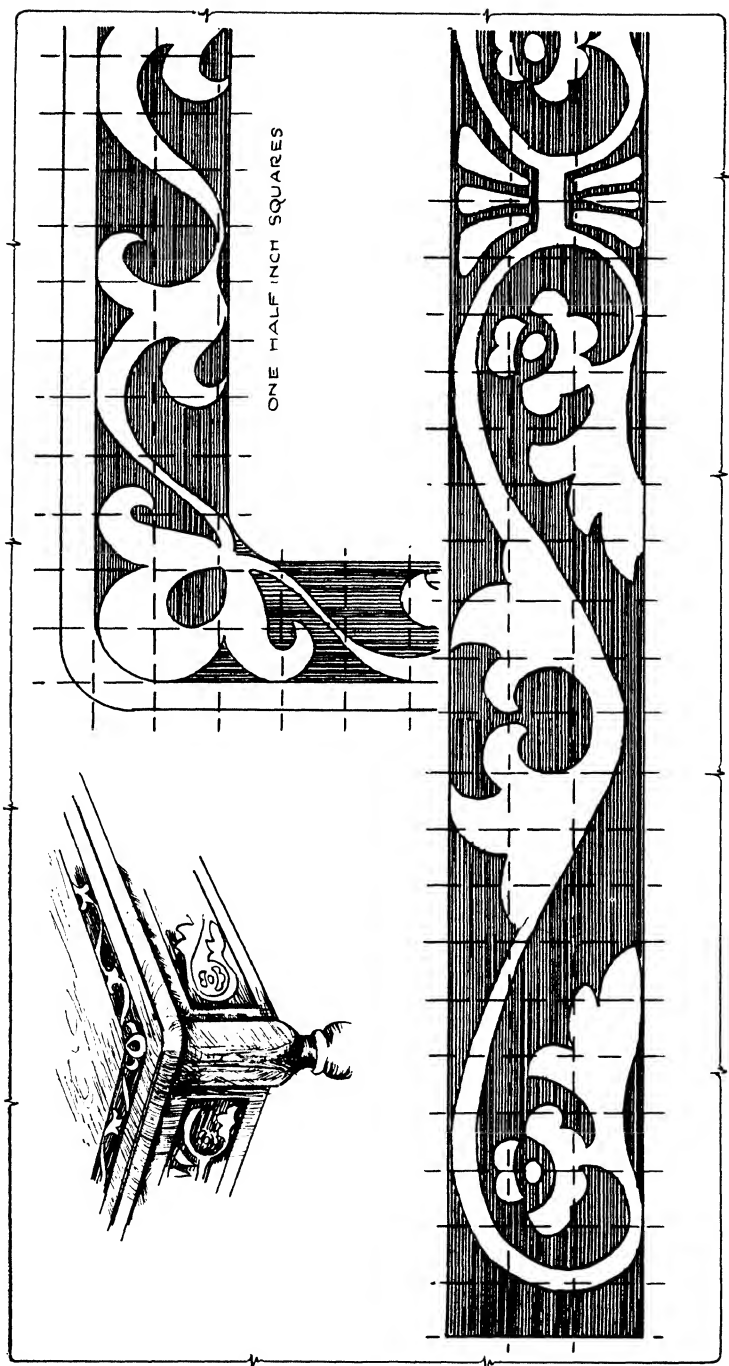
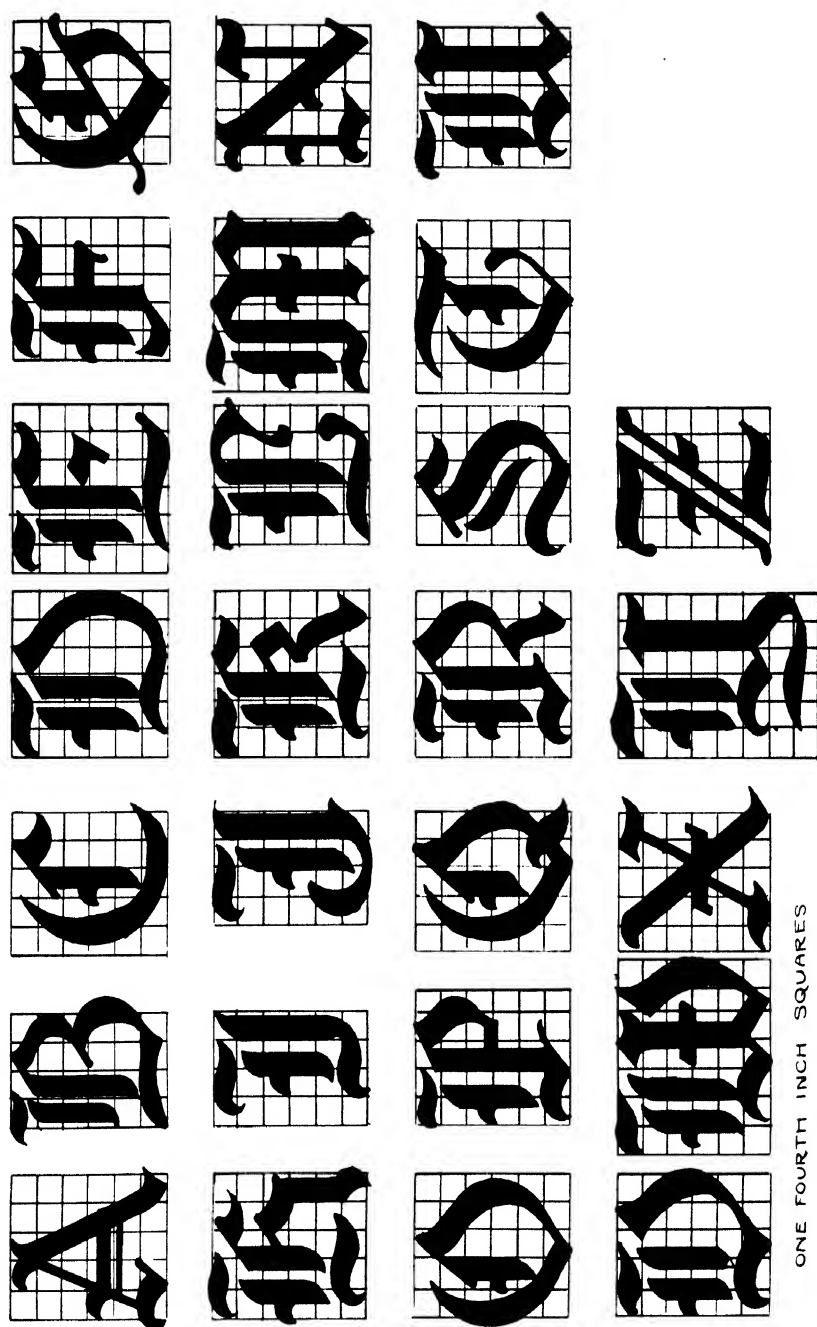


Fig. 12a. A console table with incised carving

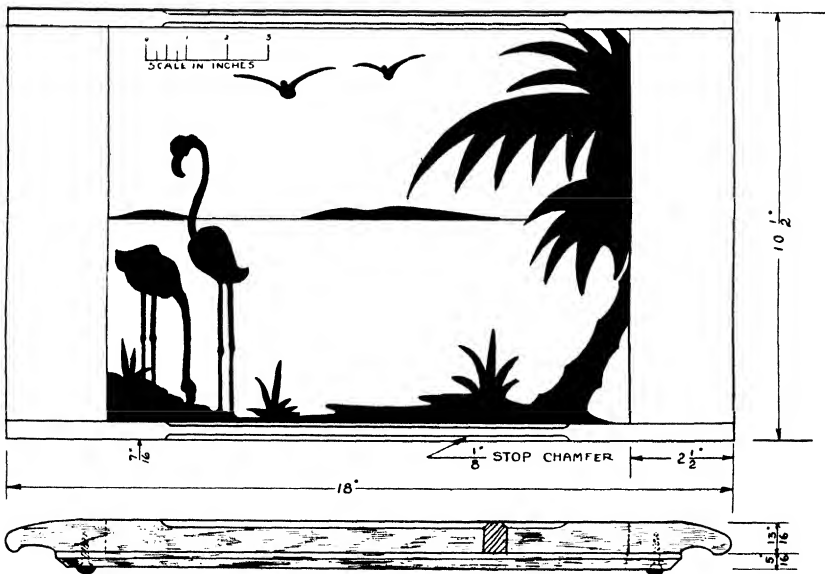


ONE FOURTH INCH SQUARES

Fig. 13. An Old-English alphabet suitable for carving

work to the best advantage, such as walnut or Philippine mahogany, both of which are very fine cabinet woods. White oak, which, after all, is one of our finest cabinet woods, also may be used. If oak is used, it should be stained with walnut oil stain for the most satisfactory finish. It is advisable to use the V tool for outlining the design on this piece instead of the knife method described for beginners.

The work suggested in this chapter on incising presents only a beginning in the field of wood carving. It is not difficult, and offers splendid possibilities for fine work. The value of the work depends, of course, on wise and careful choice of design both in the carving itself and in the piece of work which it is intended to decorate and of which it forms a part. Success depends so much upon the excellence of the design that it is worth while to give it the most careful study.



Modernistic Serving Tray

The design is carved exactly like that shown in Figure 11

Chapter II

CHASE CARVING

This form of carving is only slightly more difficult than that presented in the last chapter. Here the design is simply cut into the wood with a *gouge*, without attempting to produce a background for bringing the work into relief. It is important to become thoroughly familiar with the gouge as it is the most commonly used tool in carving. To be able to carve the several projects as shown, three sizes of gouges are required, the $\frac{1}{8}$ -, $\frac{1}{4}$ -, and $\frac{3}{8}$ -in., long-bend type. When performing this work and

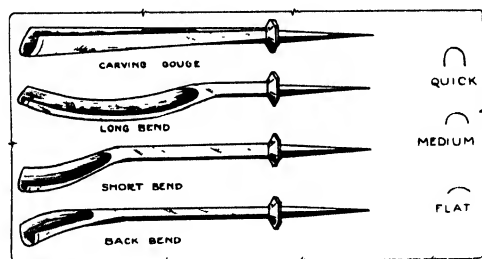


Fig. 14. The shanks, shapes, and sweeps of gouges

in learning how to use the gouge, the student finds that he has to reckon seriously with the direction of the grain and the texture of the wood upon which he is working. As shown in Figure 14, gouges are of four kinds depending upon the shape of the shank. The shape of the cutting edge of the gouge is referred to as the *sweep*. The sweeps are known as the *quick*, the *medium*, and the *flat*, with many intermediate shapes to fit certain contours in carving.

Chasing adapts itself readily to machine carving, and for this reason it is used extensively in factory production both alone and with other kinds of carving. Many designs and suggestions for this kind of work can be obtained by the beginner from a

study of factory-made furniture. The execution of the work is so simple that it needs but little explanation. Figure 15 shows the method of holding the gouge, and also shows the design in the process of being cut. One hand furnishes the motive power



Fig. 15. Position of the hands in using the gouge for chase carving

to the tool, and the other restrains, controls, and guides it. Difficulties presented by the wood growth can be readily overcome with practice. Several practice pieces ought to be worked out before attempting to work on a piece to be used for production. This type of work is really another form of *incising*, and it is so called in some texts; however, *chasing* is a more generally accepted name, and serves to distinguish it from the work presented in the preceding chapter.

Figure 16 shows examples of simple carving. Nos. 2 and 7 are examples of chasing. No. 1 shows a form of gouge work where a portion of the surface is worked out with a small gouge, giving it a rough and rugged appearance which is sometimes very pleasing, especially on small articles. This surface treatment is also shown on the rails of the Jacobean stool, No. 4. No. 3 is a small box done in chip carving. This project is included here because chip carving resembles chasing in that the cuts make up the figure without a supporting background. Chip carving, which is probably the oldest form of carving, being barbaric in its origin, also closely resembles incising because it is cut with similar tools. It is merely mentioned in this chapter since it is not thought of sufficient importance to treat in detail.

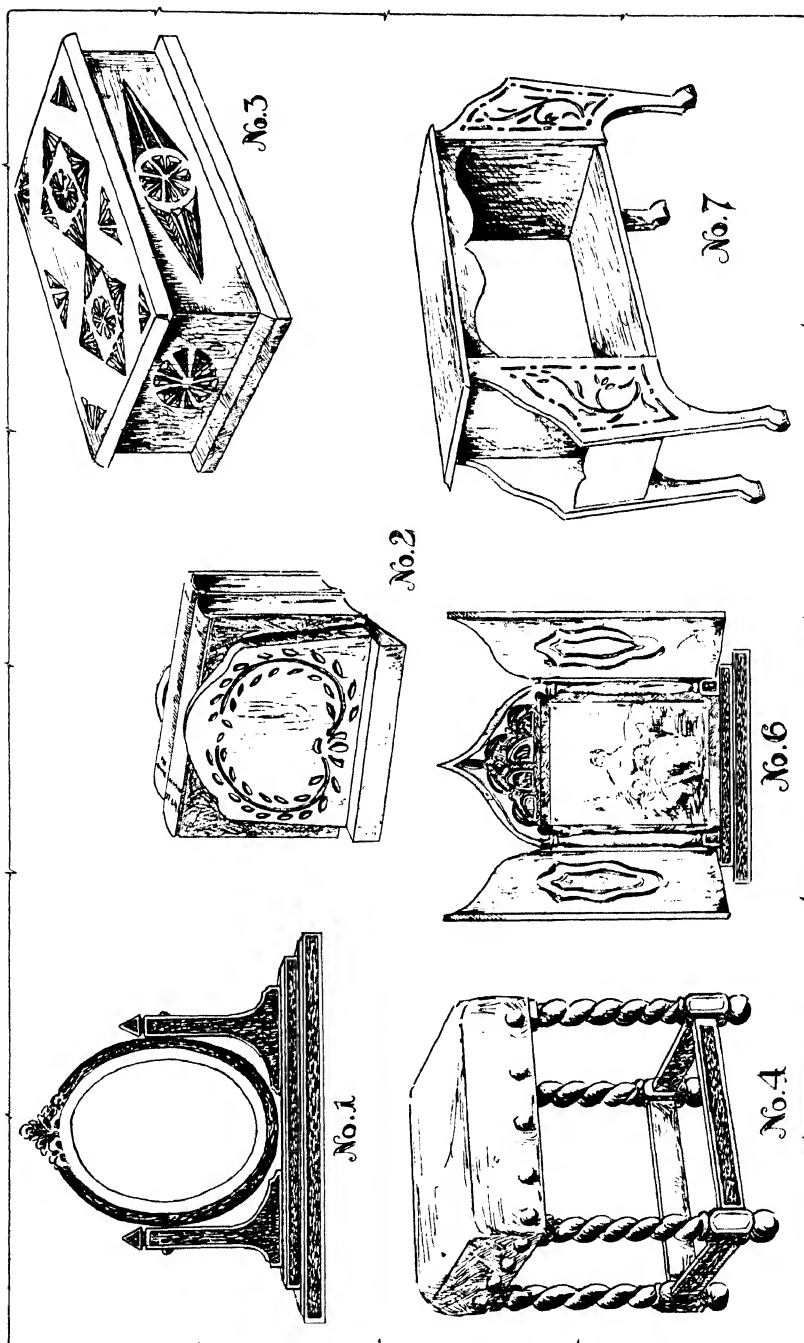


Fig. 16. Examples of simple carving as applied to various projects

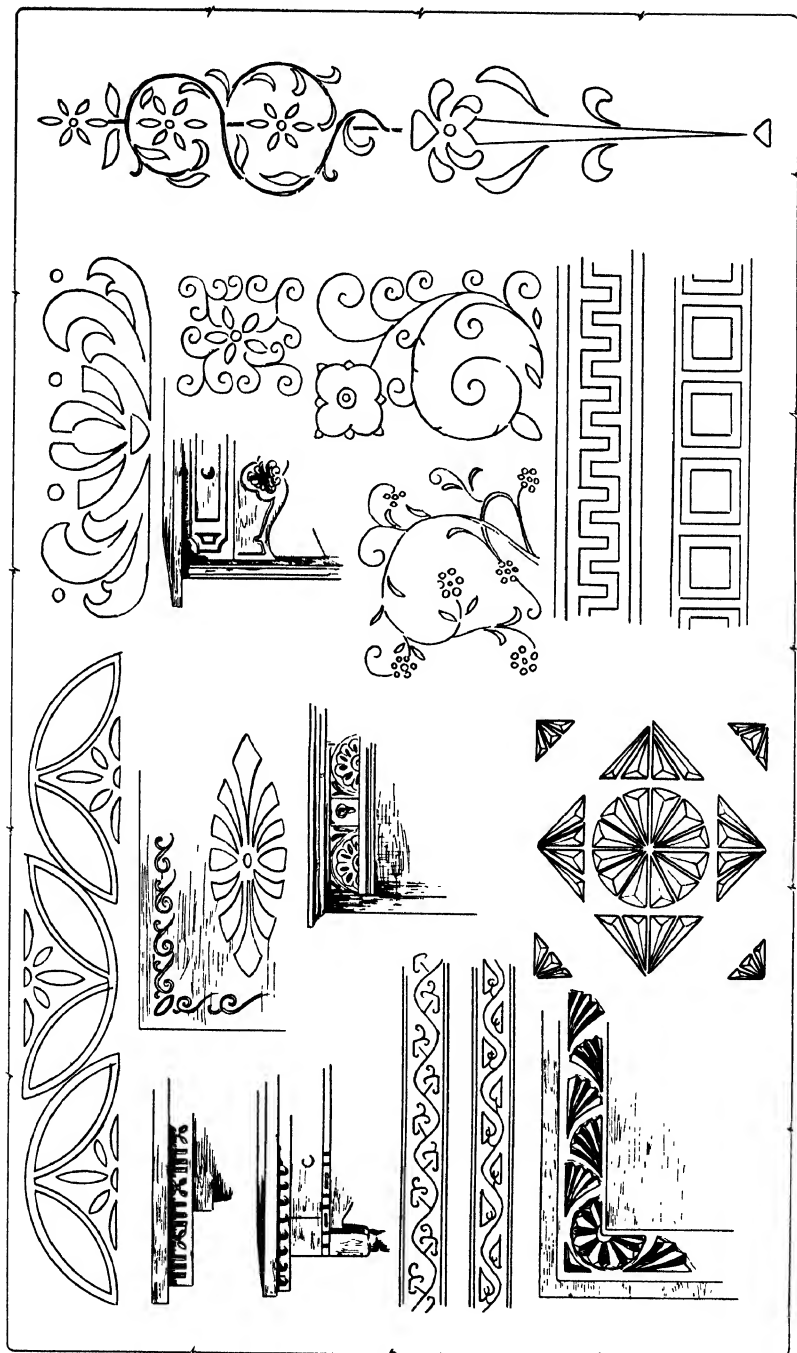


Fig. 17. Designs suitable for incised carving

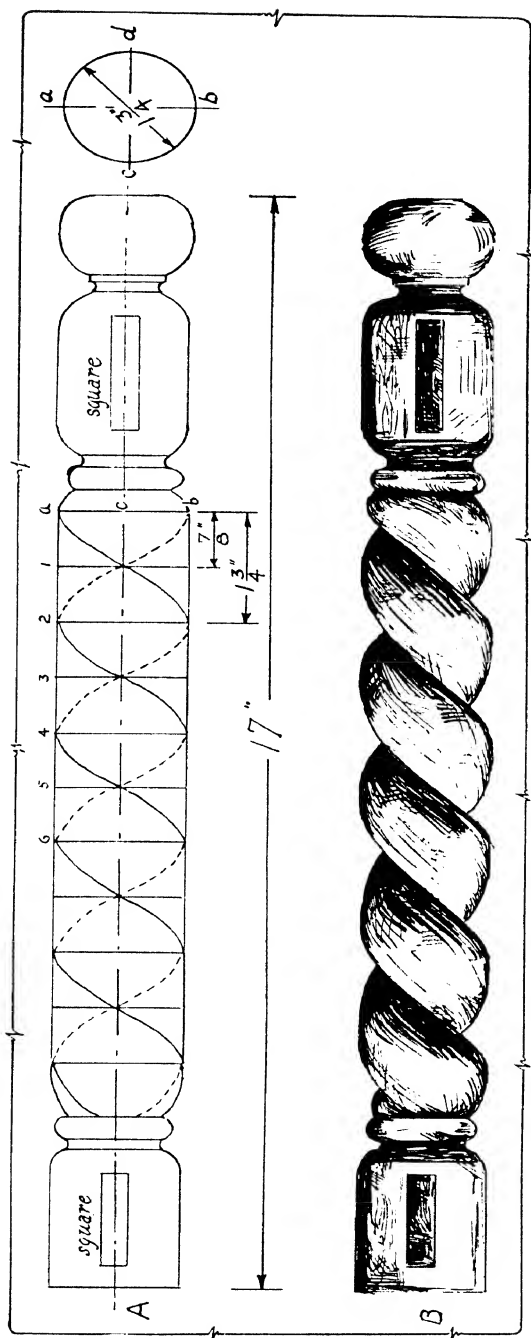


Fig. 18. Illustrating layout and finished spiral for Jacobean stool

Figure 17 shows several designs suitable for chasing and also suggests the placement of some of the designs on parts of furniture. These designs, which are suggestive of the possibilities of this type of carving, must, of course, be adapted to the shape, the size, and the layout of the space to be filled.

Cutting Spirals

The stool shown as No. 4 in Figure 16 will work up into a rather fine example of period reproduction. It is 18 in. high and 14 in. square at the top. It is shown here to introduce spiral cutting, which is a very necessary accomplishment to one who would do much carving in period styles. Figure 18 shows the layout and the finished leg. Spirals are cut in many variations

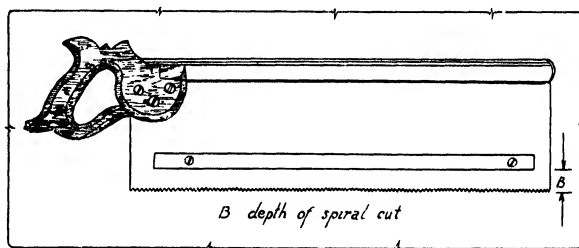


Fig. 19. Showing gauge as used on saw to determine depth of cut in spiral cutting

and shapes, and the one shown in Figure 18 is a double spiral which is the easiest type to cut.

To make this spiral, the piece is first turned to outside dimensions, which in this case is $1\frac{3}{4}$ in. Keeping the piece in the lathe, lines *a*, *b*, *c*, and *d* are laid off on the cylinder, drawing the lines from end to end. Next, the cylinder is divided by lines at 1, 2, 3, 4, etc., the spaces between them being equal in length to one half the diameter. Points *a*, *b*, *c*, *d*, etc., are then connected as shown at A, in Figure 18. Keeping the piece in the lathe, a cut is made to the required depth of the spiral, with the backsaw, on all spiral lines, the piece being revolved by hand as the sawing proceeds. The depth of the saw cut on a leg this size would be about $\frac{3}{8}$ in. In order to be certain to saw to a uniform depth, it is well to gauge the depth of the spiral cut by securing a small strip of wood to the backsaw, as shown in Figure 19.

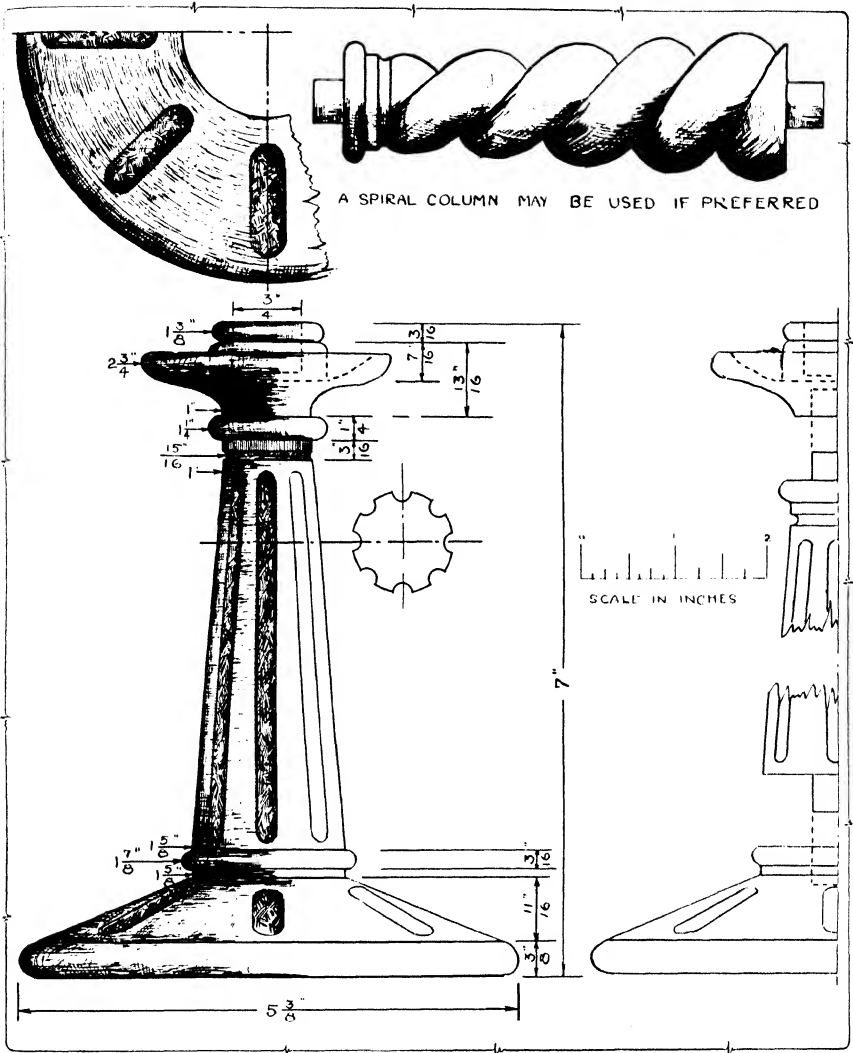


Fig. 20. A Grecian-type candlestick for chase carving

After the sawing is completed, the material is uniformly cut away down to the spiral saw cut from each side, and is finished with a wood rasp and by sanding. The layout as given in Figure 18 appears a bit confusing, since both sides are shown; however, no difficulty will be experienced in actually laying out the work.

Figure 20 presents a classic, Grecian-type candleholder which

the student is urged to complete for additional practice in chase carving. Both the stem and the base of the piece are carved. The method of laying out and working the flutings in the stem of the candleholder is similar to that shown in Figure 31. The detail drawing shows the method of turning this project in three pieces. A spiral stem also is shown which may be substituted for the fluted column, if desired. This spiral effect, however, is not quite so well adapted to this project.

Figure 21 is a comparatively simple exercise, the decorations of which are worked out in chase carving. The center rosette may be colored by painting in the depth of the petal cuts. Adding a touch of color to this design, as well as to others in chase carving, will help to bring out the effect of the design. This novelty case may be made in any suitable size, the dimensions given here being only suggestive, and the design may be worked out to fit the space to be filled. Any one of the three joints shown may be used to assemble this project.

Figure 22 is a low footstool, the sides and ends of which are decorated in chase carving. The designs fit particularly well into the general lines of this stool. The turned feet add the effect of stability, as well as give a pleasing, artistic note to this piece. The carving is very easy to execute. This being a piece of advanced work, an exception is made by showing a background gouged out to give relief to the design. The background, as shown, is designed to be gouged out and left somewhat rough, or rough enough to show some of the gouge marks. The gouge used in making this background should have a very flat sweep. The upholstering is done in leather or tapestry, as desired, to suit the surroundings in which the stool is to be used. For methods of upholstering, any good text on that subject may be referred to.

Figure 23 is a stool which may be used for a seat, a piano bench (if length is increased), or for a leg rest. The turnings shown are well adapted to this piece of work, and give an effect of stability. The legs have fluted columns. The rails, both above and below, are decorated in chase carvings. The contrasts of the vertical carvings in the top rails to the horizontal carvings in the bottom rails is pleasing. The dimensions given will work up into a very satisfactory stool. If a bench effect is desired, the length

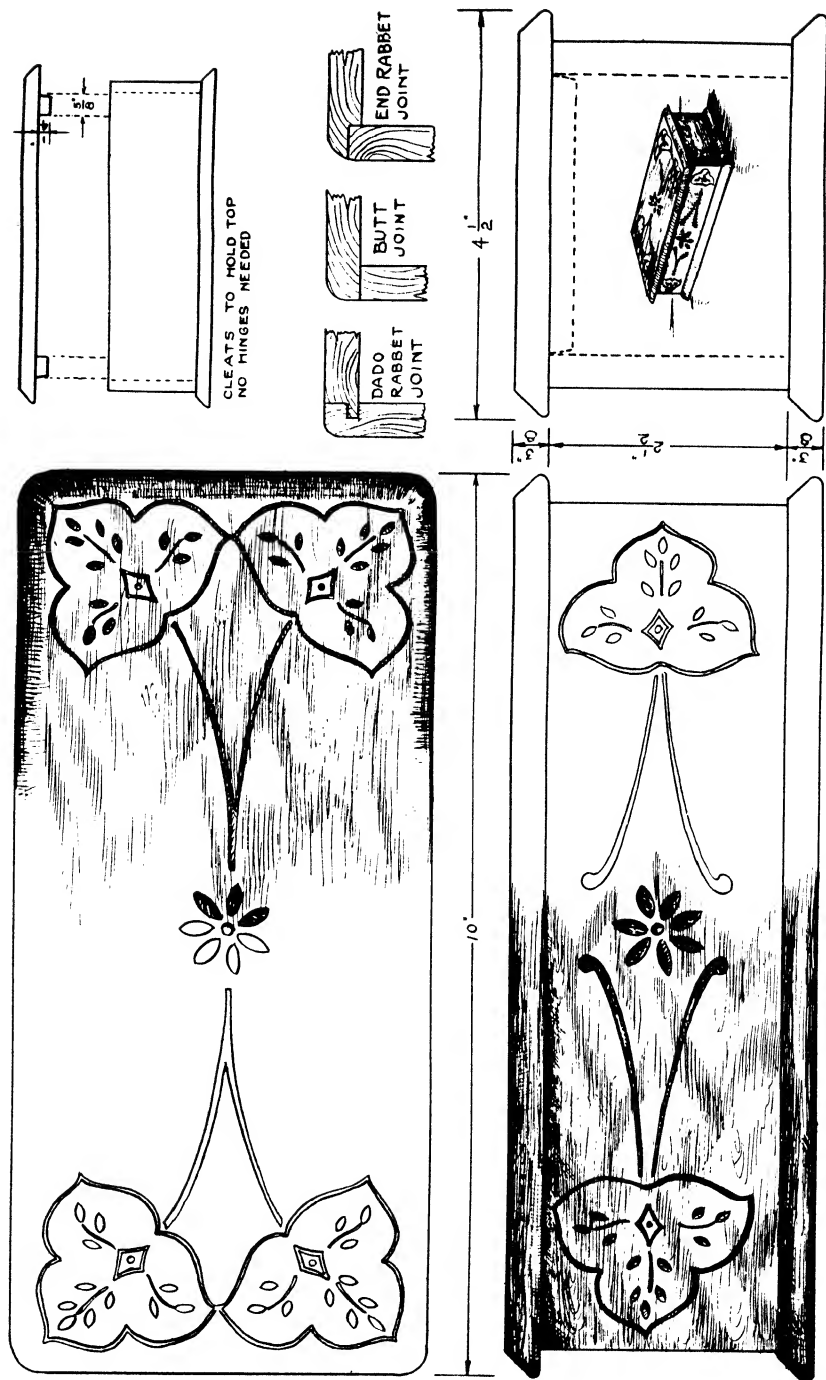


Fig. 21. A novelty case with carved decorations

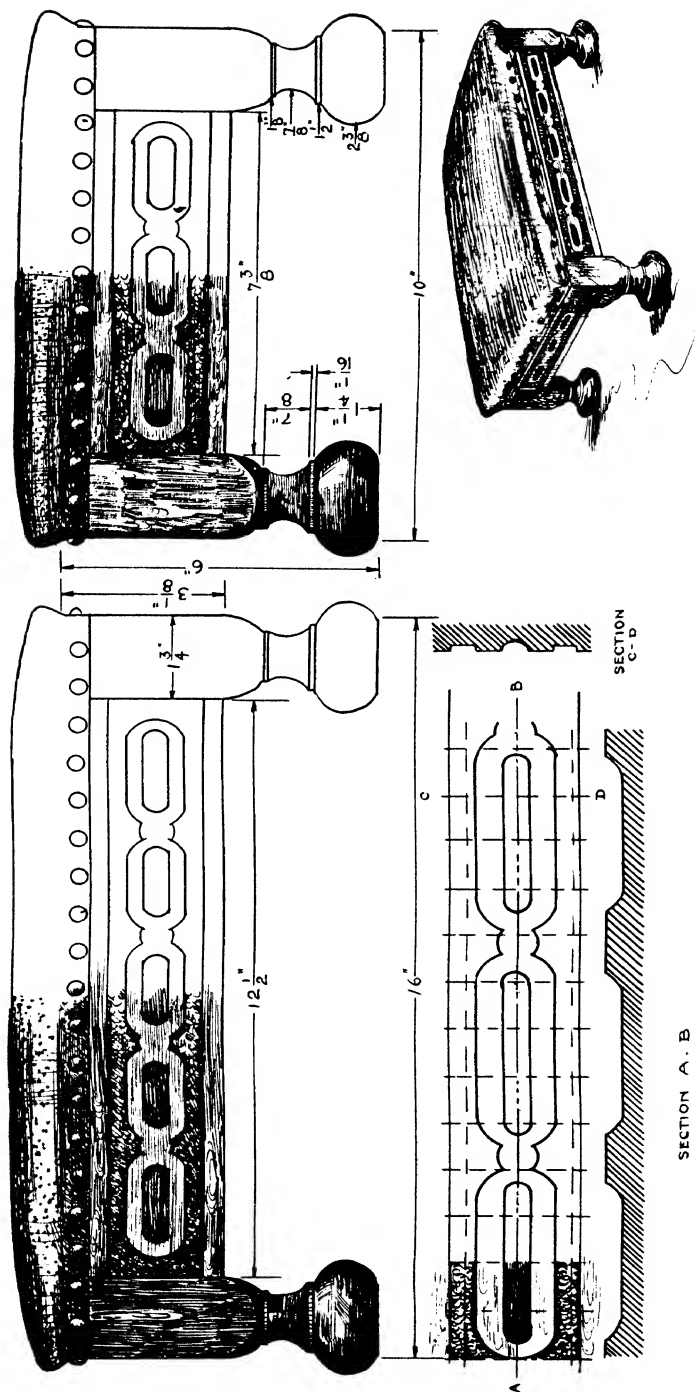


Fig. 22. A low footstool in chase carving with background

SECTION A . B

SECTION C . D

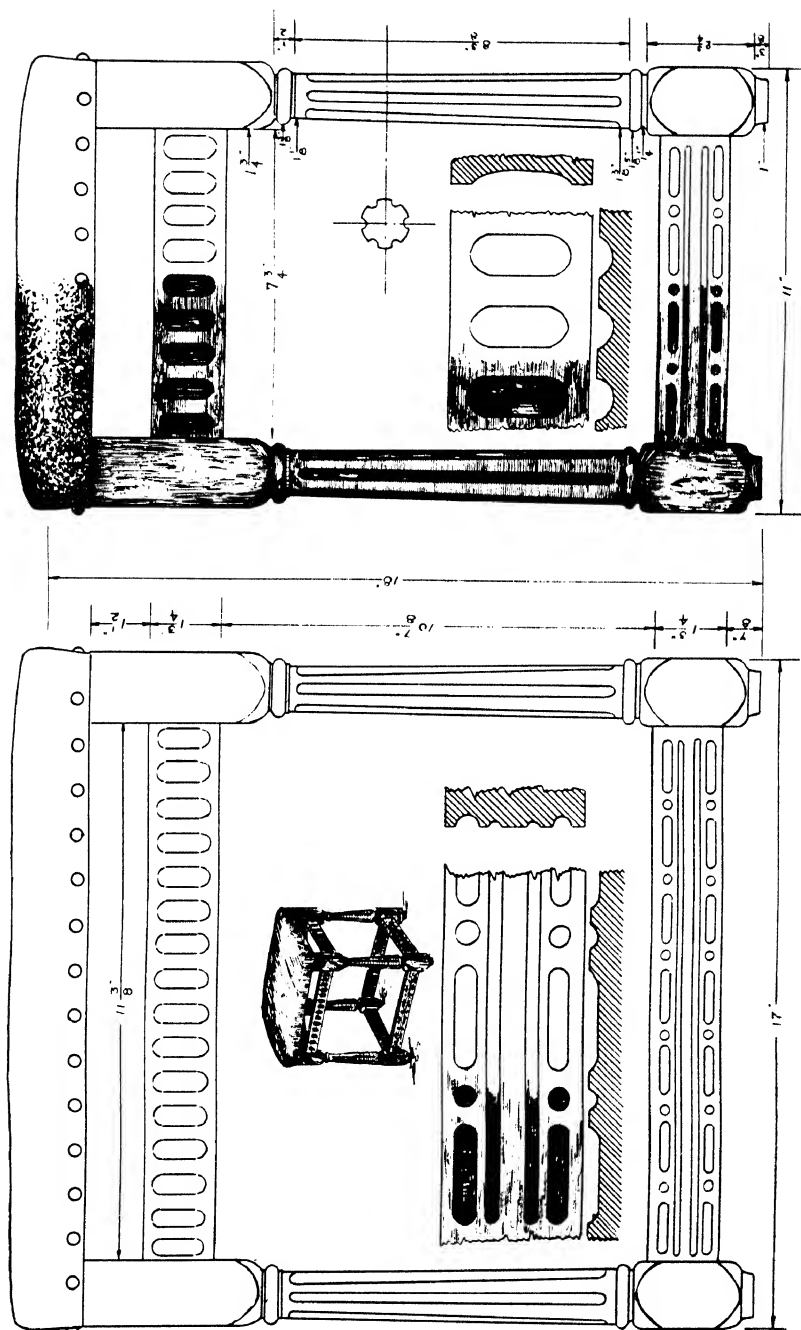
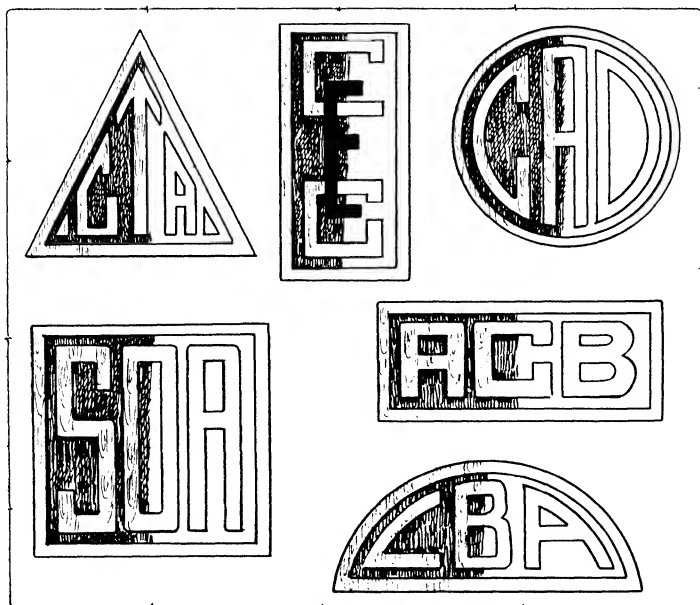


Fig. 23. A leg rest with chase carving decoration

should be increased. For information on wood finishing, upholstering, etc., the student should consult texts on those subjects.

The beginner should buy a few tools at a time as he needs them. He should buy only good tools that will take and hold a razor edge in the hardest wood used by the carver. An expert wood carver uses many tools, but the amateur, or the student of industrial arts, can get on fairly well and do excellent work with about a dozen well-selected tools. To some extent, too, the designs to be made must be adapted to the shape and range of tools at hand.

The wood carver's trick of being able to cut with, against, or across the grain of the wood while working from one position is something that has to be learned by experience. This may be obtained by practicing carving on a cake of ivory soap, although the working in soap is not recommended. Nevertheless, some students seem to gain confidence in this way. When the carver has finished his work for the day he should clean and oil the edges of his tools — *especially if he has been working in soap*. The cutting edges of carving tools should be sharpened and cared for like a razor.



Suggestions for chase carving

Chapter III

PIERCED WORK

Pierced work in carving is not unlike jigsaw work or fretwork, as the background of the design is entirely cut out. This has the effect of throwing the design to be carved into bold, free relief, as shown in Figure 24. Pierced work is not difficult, as there is no long, tedious cutting away of the background and there is very little development of the design, since there are very few *in-lines*, i.e., lines to be cut wholly within the design. The entire background is cut away with a jig or saber saw, or, if power tools are not available, with a coping saw. The one essential requirement is that it be neat and well-designed, because, as one can look through the work, all shapes and forms stand out in such relief that slight imperfections, or lines out of harmony become very apparent. Beyond demanding a neat, well-turned design, this form of carving is quite easy. Sometimes pierced work is combined with other forms of carving, as shown in Figure 24, in which case the pierced carving merely makes its contribution to the general effect of the whole. Chippendale used this form of carving perhaps more extensively than any one of the old masters in furniture design; but it was also used by Hepplewhite, Sheraton, and Phyfe. The doorway shown in Figure 25, which is in a home in Coral Gables, Florida,¹ is a splendid example of pierced work, which is hand carved the same on both sides.

In undertaking pierced work for the first time, a simple design should be selected. Designs are laid out on paper, from a copy or from an original drawing. The method of transferring a design to the wood is shown in Figure 26. First the design is crossed by two center lines, as shown in the small inset drawing. Similar center lines are then drawn on the wood in the position where the carving is desired. A piece of carbon paper is then

¹Designed and made by the Imperial Wood Carving Studio, Miami, Florida.

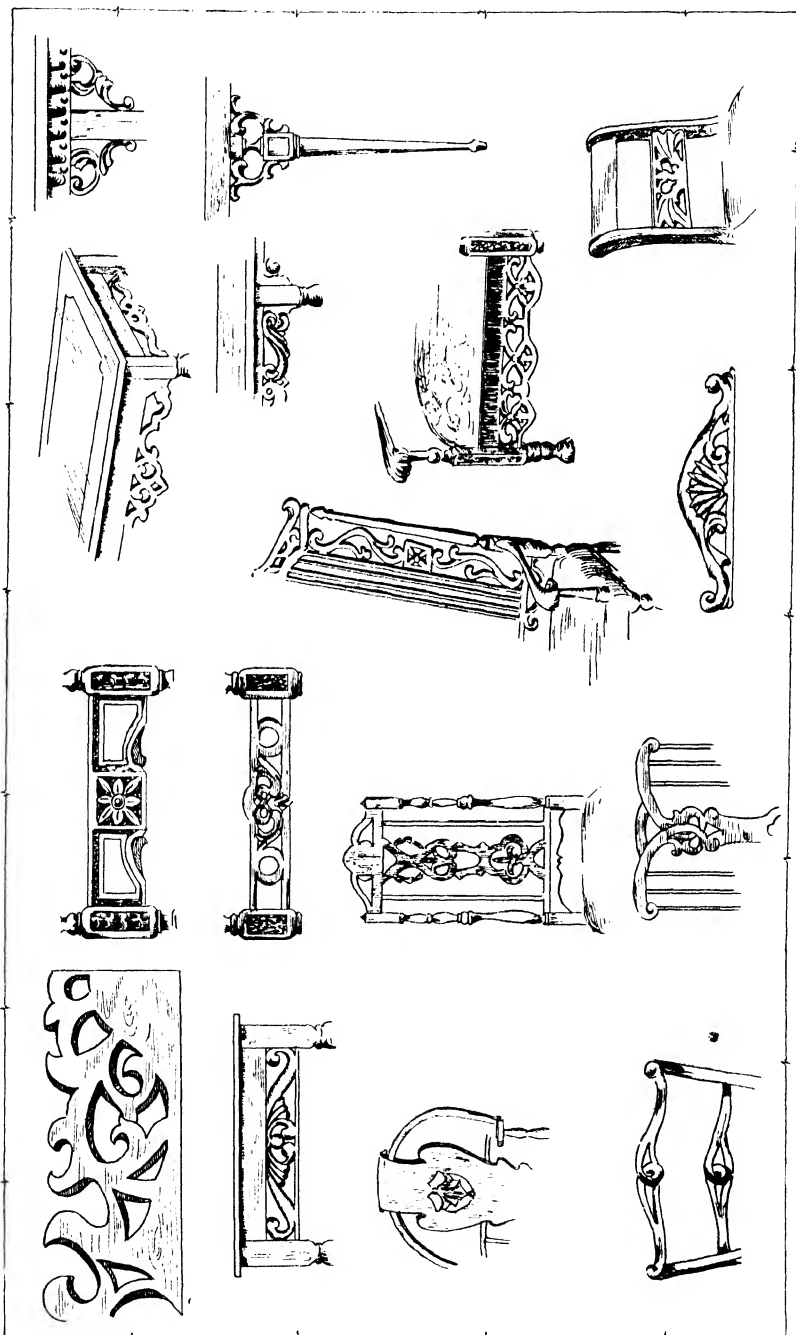


Fig. 24. Types of designs used in pierced-work carving

placed on the wood and the design applied over it in such a position as to match the center lines on the paper and on the wood. A stylus is used to go over the lines of the drawing — to use a pencil for this soon renders the original drawing unusable.



Fig. 25. A doorway representing a fine example of pierced-work carving

After tracing the outline of the drawing on the piece to be carved, all parts to be pared down or cut away are shaded with a pencil. Very little practice in this kind of carving will quickly develop command of the tools used, and, with the advance of skill, more difficult work can be undertaken. After the sawing and cutting is done, very little rasping and sanding finishes the work.

Figure 27 is a two-unit desk set decorated with pierced-work

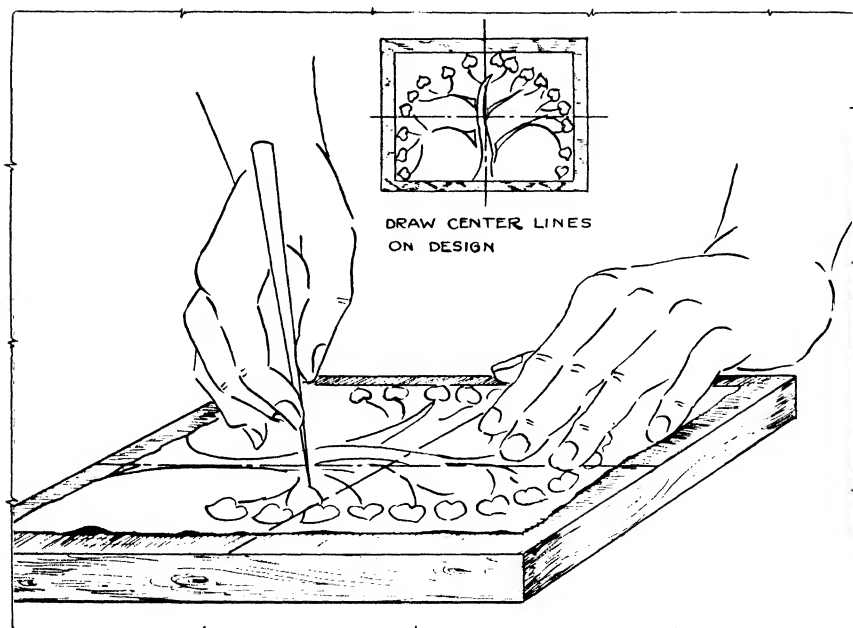


Fig. 26. Transferring a design to the wood with a stylus

carving. This is the well-known *fleur-de-lis* design, which, because of its massive quality, is adapted particularly to this model. A complete drawing of the letter holder which should accompany this set is not shown. It is made in the same manner as the one in Figure 9 under incised work. The knob on the blotter pad is very attractive in brass, but it may be made of turned wood.

Figure 28 is another rather simple model decorated with pierced work. The wastebasket can be worked up in any soft wood that will take a good finish, or it may be made of plywood. The drawing shows a six-sided basket, but one with eight sides may be made by reducing the sides to $3\frac{3}{8}$ in. at the bottom if the basket is to be approximately the same size as the one shown. If the heraldic design is used, it presents splendid possibilities of being set off by the use of some color in addition to the carving. The basket is laced at the sides with rawhide thongs. This project represents only slightly more work than the desk set in Figure 27.

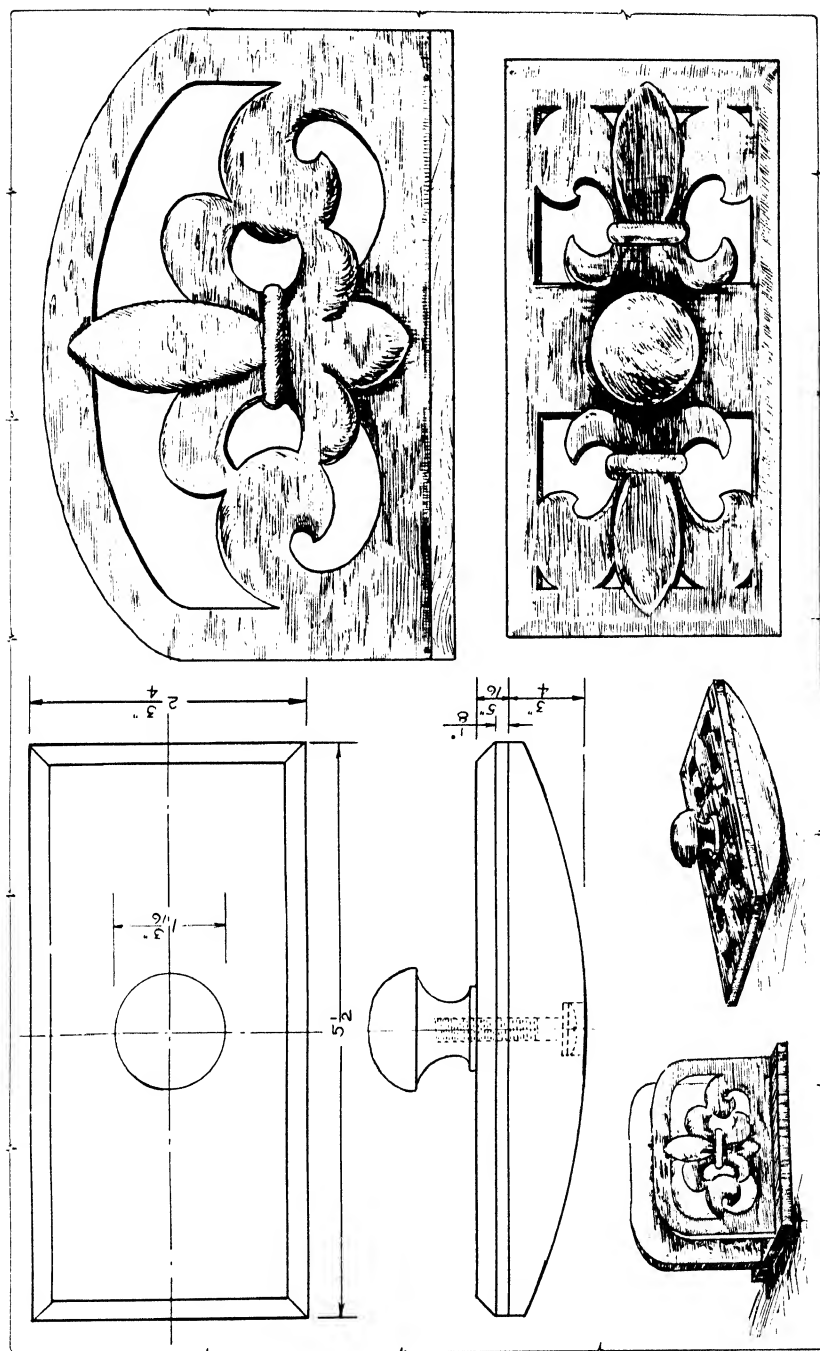


Fig. 27. A two-unit desk set in fleur-de-lis design

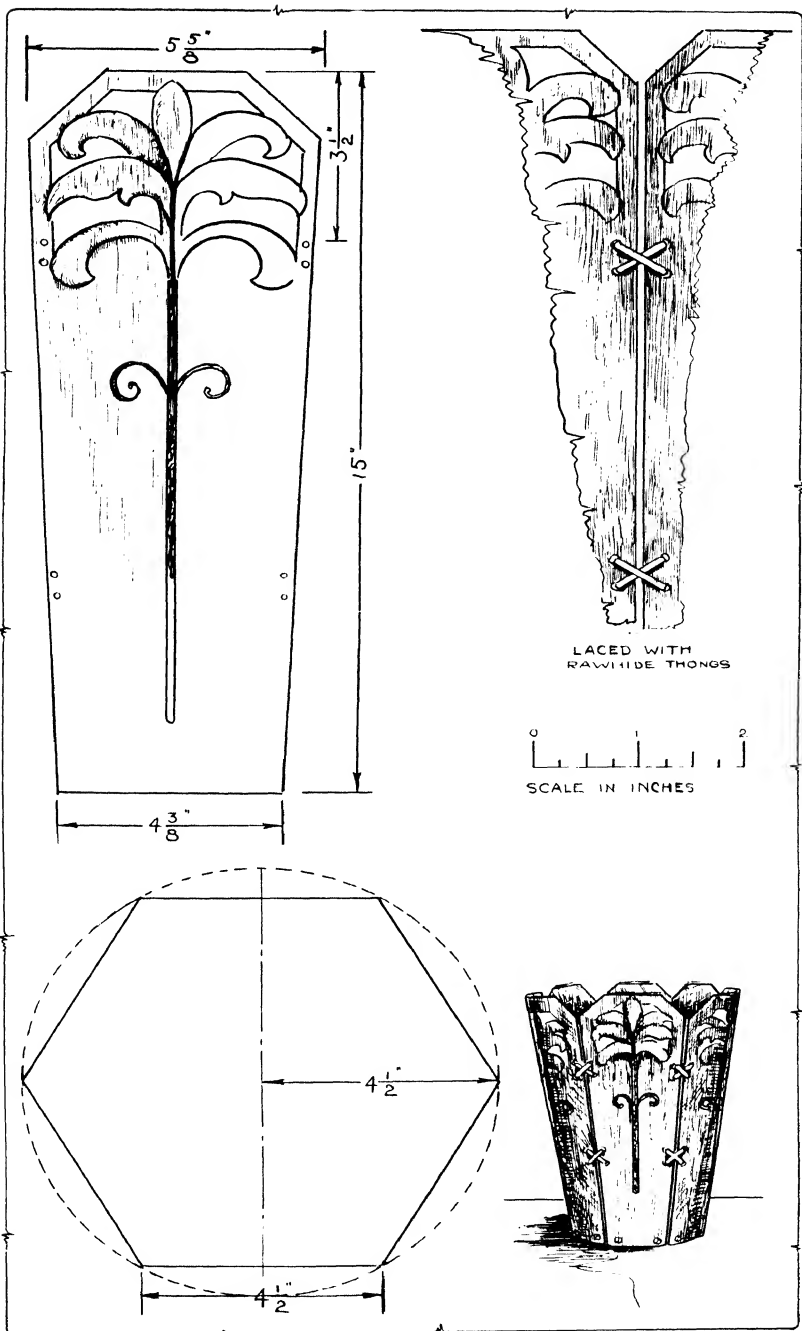


Fig. 28. A hexagonal wastebasket

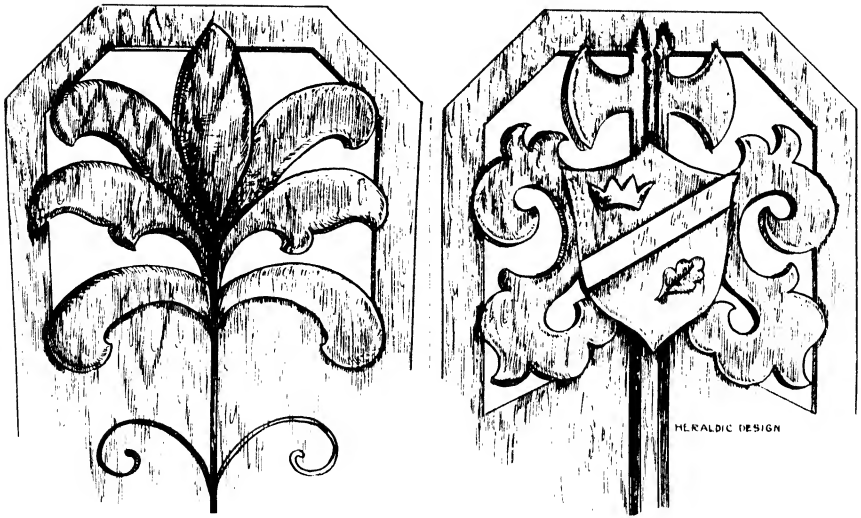


Fig. 28a. Suggested designs for a hexagonal wastebasket

Figure 29 shows a sketch, a mechanical drawing, and the necessary details for making a Tudor-style coffee table. Simple pierced carving is used in the supporting brackets under the rails which are carved in chased-work designs. This table is an excellent design, and is not too difficult for students in the advanced secondary grades in school industrial-arts work. The rails of the table are cut down to give the appearance of wear and age. This table is designed to use a tiled top, but it may be made with an ordinary, glued-up wood top. If it is to be tiled, the top, of course, is framed together, and is not made solid and then cut out. To set in the tiles is quite simple, and instructions for doing the work can be given the student by any tile setter.

The lamp base in Figure 30 is introduced here to offer an advanced review project in a type of work previously studied. The project is a combination of incised work, chasing, and a bit of relief carving. A wood which can be quite easily cut and is worthy of the work put upon it, such as walnut, Honduras mahogany, or chestnut, should be chosen.

The illustrations in both Figures 30 and 31 are complete enough to leave little to be explained in the text material. The piece is first turned, but is left large enough for cutting in the small relief work shown at the top of the project. The work on

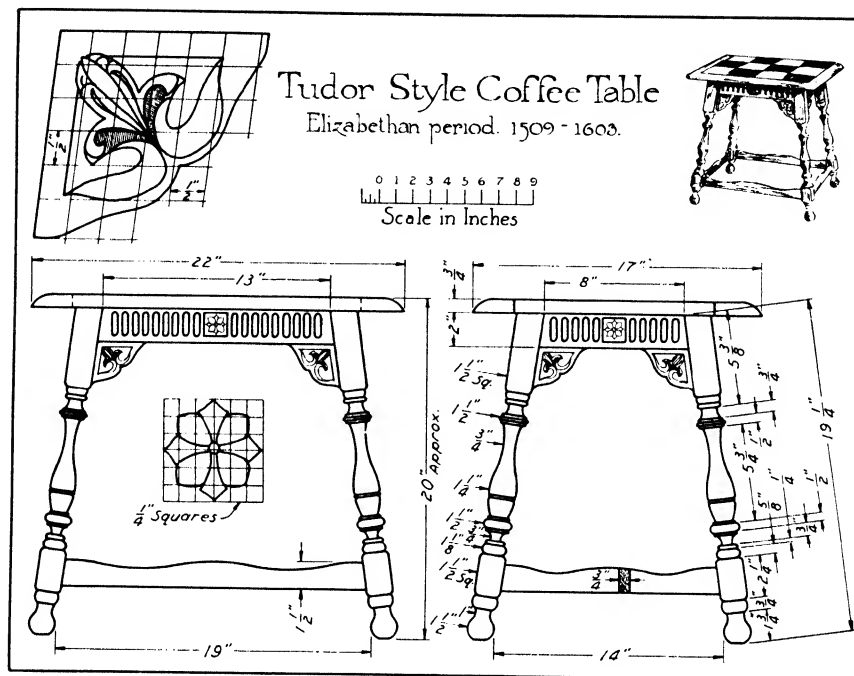


Fig. 29. Tudor coffee table

the body of the lamp is not cut in relief (if it were, it would be reed work), but is cut into the wood, and is called *fluting*. This is much easier than reed work, and requires much less time. It is, nevertheless, a good preparation for undertaking reed work later. The piece may, of course, be returned to the lathe for any final finish and polishing that may be necessary.

To lay off fluting a strip of paper the length of the largest circumference is laid off in the proper divisions, then wrapped around the base, and the divisions transferred to the wood. The vertical lines are laid off from these points after the base has been centered in the form box-jig, as shown in Figure 31. The sides of the box afford guides for the gauge. This gauge may be made for the occasion as shown. The size and kind of carving tools to be used are indicated in Figure 31. This type of work requires great care, and the worker must accustom himself to working over a curved surface. As new work and more advanced and complicated designs are undertaken, new shapes of tools are

required. Some carvers who have access to metalworking equipment make their own tools. It is possible also to adapt the carving designs to the tools on hand by making slight changes in the lines and curves and in this way lessen the need for an extended list of tools.

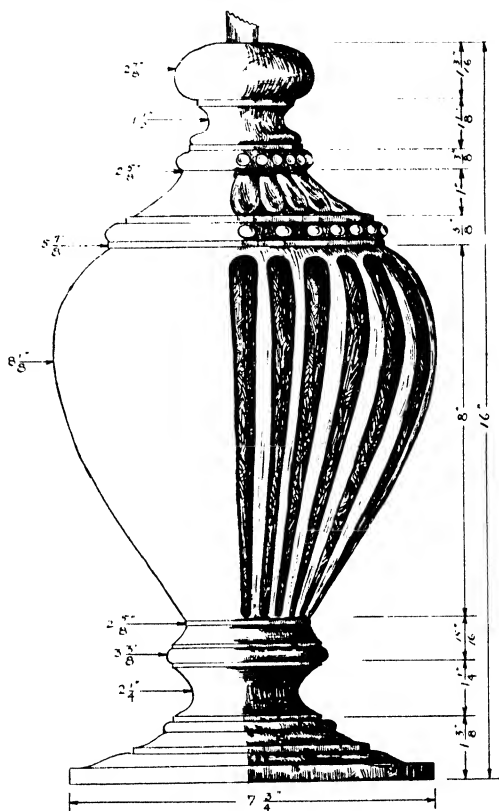


Fig. 30. A carved lamp base

Figure 32 shows an occasional chair, or by increasing the height of the back it may be used as a hall chair — for use in those sections of the country where folk still have halls. The student who has made a few of the projects in this and previous chapters, with creditable success, need not be afraid to undertake this chair. Upholstering, of course, adds another procedure, especially so in the host chair which should have a spring seat. Upholstering is not difficult, but should not be undertaken with-

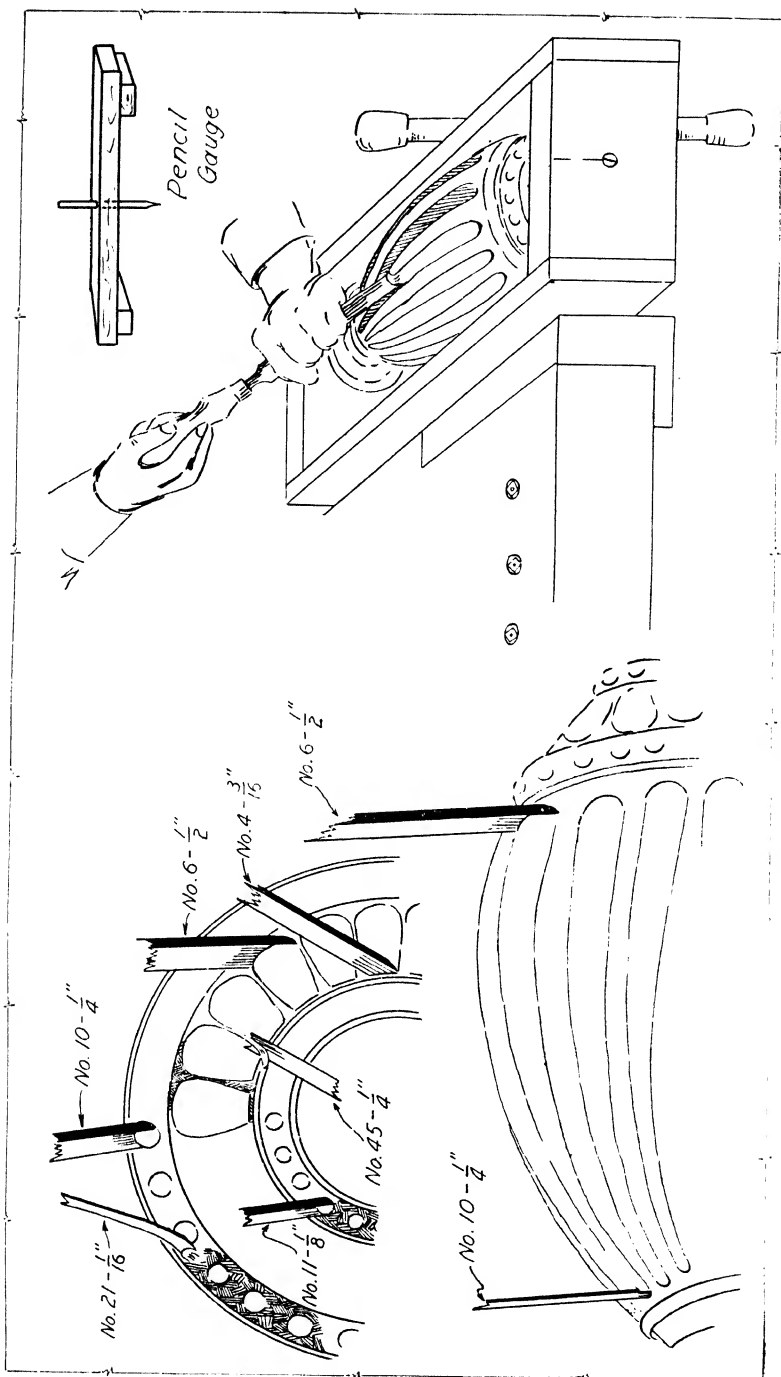


Fig. 31. Details for making lamp base

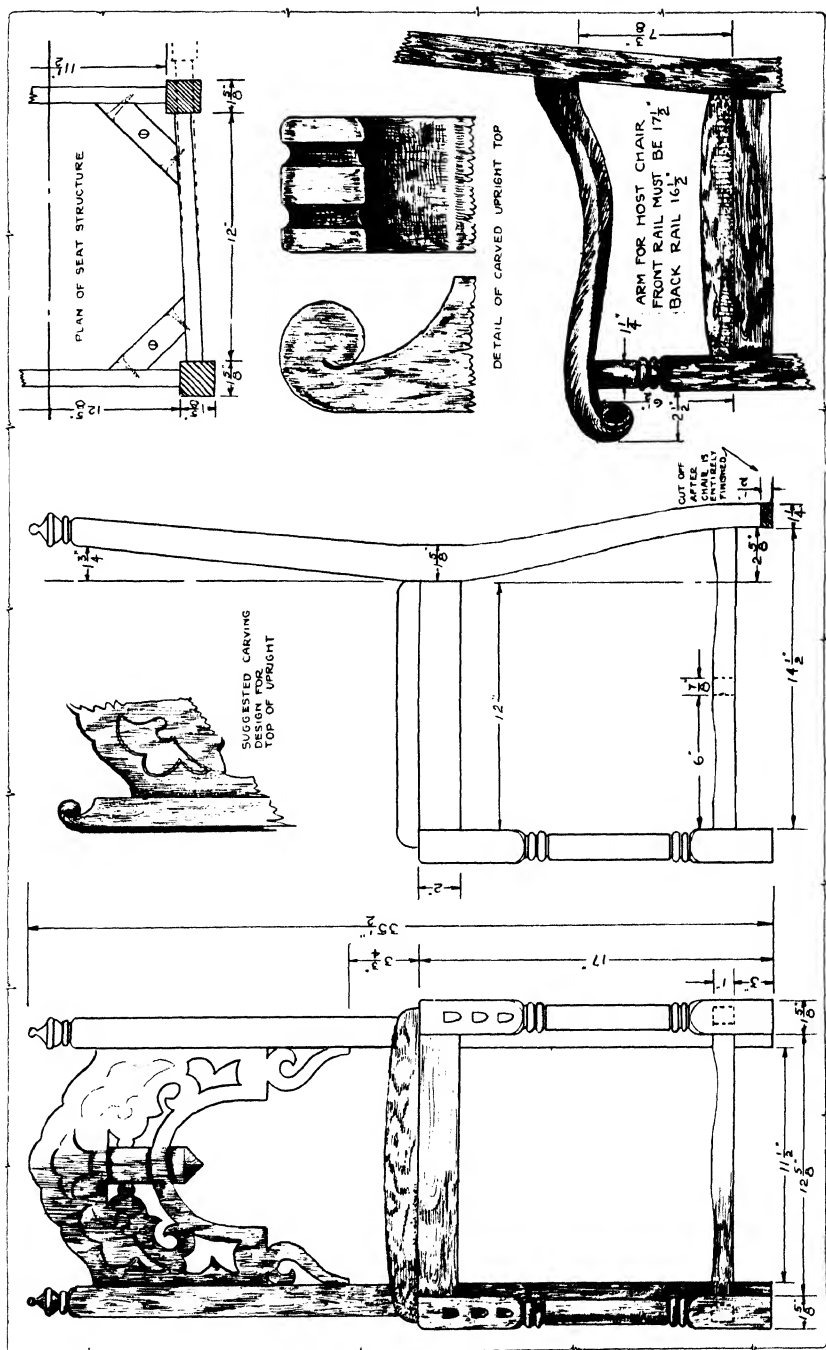


Fig. 32. Details for an occasional chair

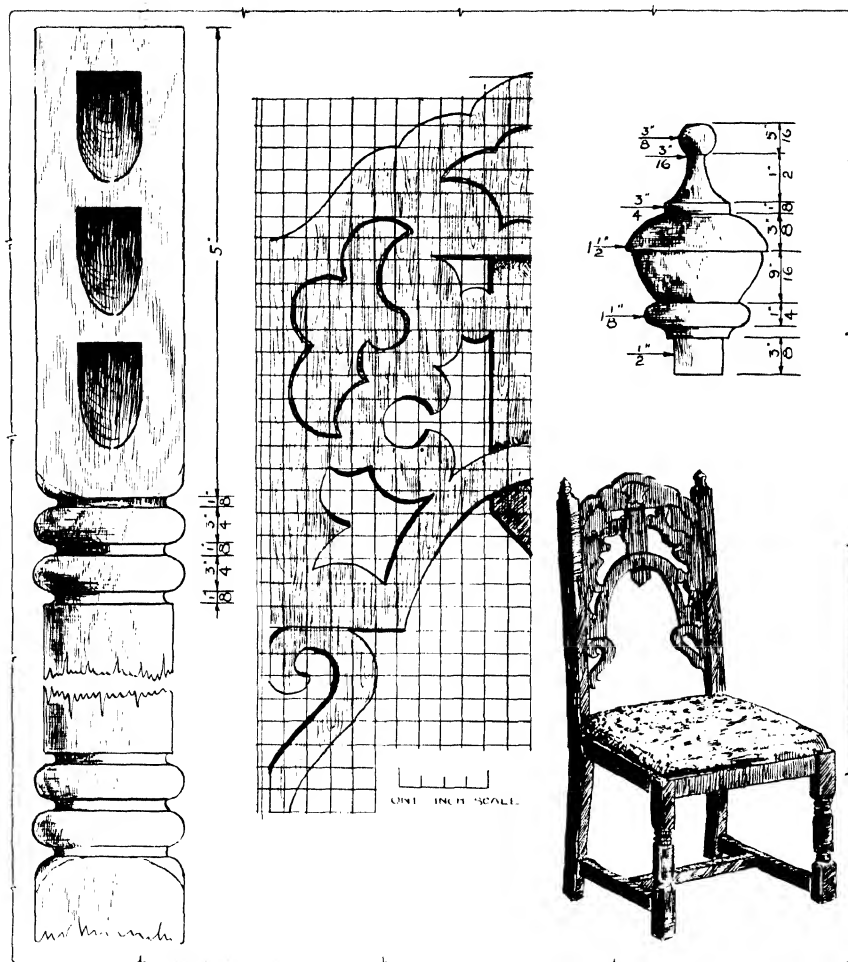


Fig. 32a. Details for an occasional chair

out instruction, either from a text or from some worker in this trade. Good upholstery adds greatly to a well-made chair.

Carving Tools

The worker who expects to do much carving will gradually acquire a first-class kit of tools adapted to the kind and nature of the work he is doing or expects to do.

The twelve tools shown in Figure 33 offer a fair selection for the amateur. With these, much work in all different types of

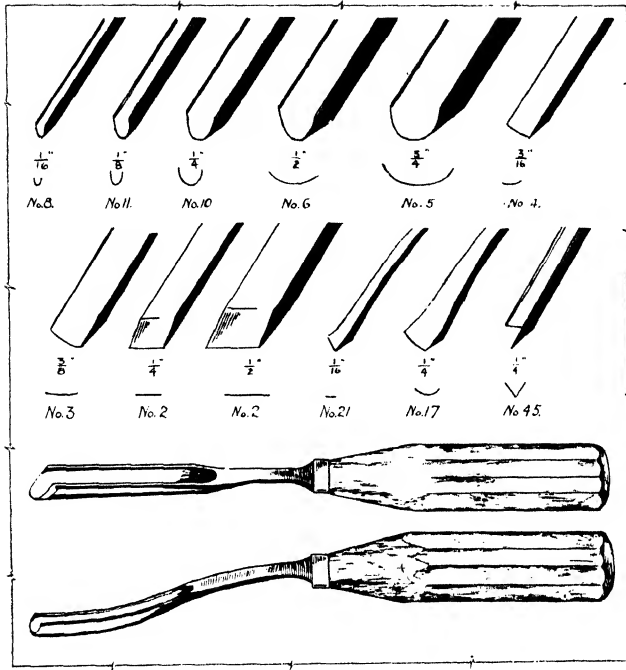


Fig. 33. Some sizes and shapes of carving tools most used by the beginner

carving may be done. If the beginner purchases his carving tools ground ready for use, he will learn the correct bevel required for most ordinary work. Carving chisels are ground with the bevel on both sides, instead of only on one side as in the case of the carpenter's and cabinetmaker's chisel. The gouge is the most commonly used tool in the kit; for this reason it is necessary to have a larger selection of gouges than other kinds of tools. The chisels are either straight across the cutting edge or skew, the latter of which is ground diagonally. Tools set in octagon-shaped handles offer a better means of control than those set in round handles.

It is taken for granted that those who undertake carving are fairly familiar with the sharpening of fine-edged tools. Since these tools must be kept razor sharp, it is necessary to purchase fine-grained slip stones to fit the inside curves of the tools. A leather strop, tacked to a wood base, on which a little fine emery paste is used, is useful in finishing the cutting edge.

Chapter IV

LEVEL-SURFACE CARVING

Level-surface carving is, after a manner, exactly the opposite of pierced work. It is largely executed with a gouge, with which hollows and grooves are cut *below* the surface of the wood. In the present work the design is on the surface of the wood, and is brought into relief by cutting down the background. In this way, much more artistic results are obtained, and there is a wider range of designs that may be more practically applied.

In Figure 34 are a number of these designs which may be laid out on the surfaces of the pieces to be carved. The design is outlined with a V tool, or small veiner, after which the background is cut away to a depth of little more than $1/16$ in. If the cutting-in of the background is left with some roughness and tool marks, a better effect is produced than if an attempt is made to work it out too smoothly. The temptation to do the background over with a punch, which is so common in machine carving, should be avoided. No carver of real ability resorts to the use of a punch for this purpose, and it is just as well to keep away from it right from the beginning.

The beauty of level-surface carving depends upon the grace and adaptability of the designs. Some are based upon the repetitions of geometrical figures, others are conventionalized natural forms. Use of the lotus flower, acanthus, and the oak leaf are common motifs in carving designs. The designs in Figure 34 afford a wide range of choice. They may be changed and adjusted to fit the space to be carved.

Figure 35 gives some suggestions as to how the designs in Figure 34 may be applied to the work.

After the student has had some experience in working up these designs on practice pieces, he may design work of his own, or select some of the work described in the following paragraph.

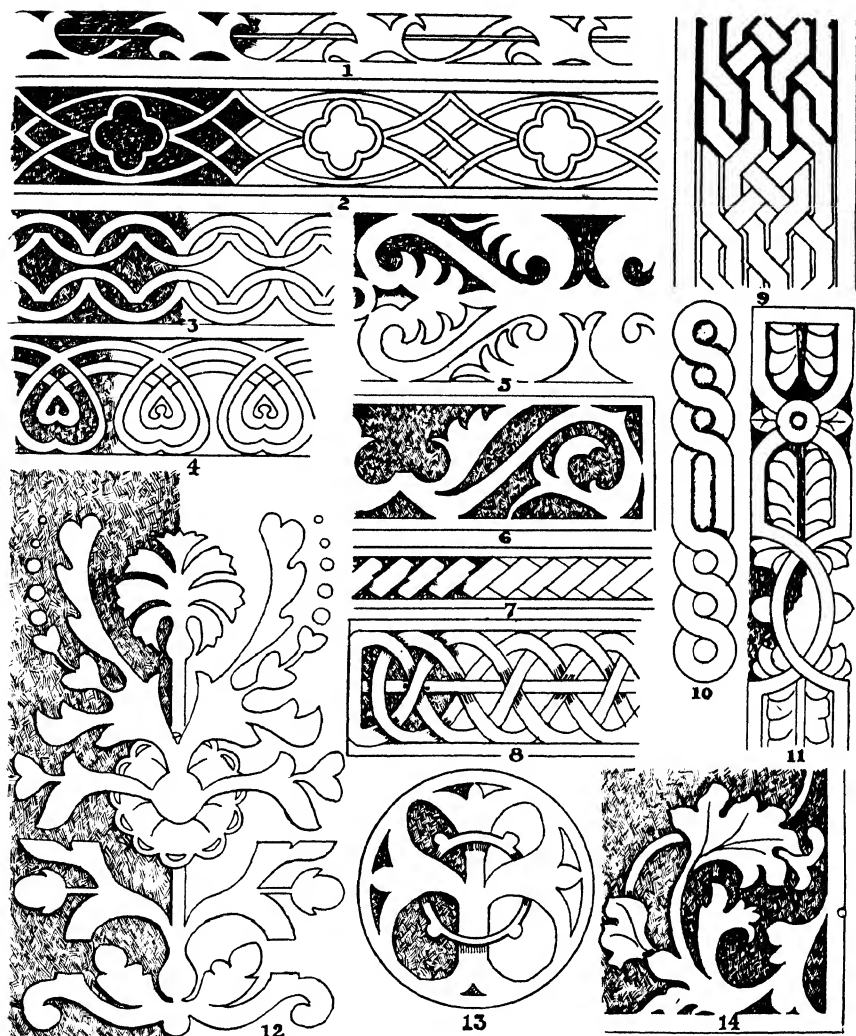


Fig. 34. Designs for use in level-surface carving

Figure 36 offers a very simple and easy exercise, which is not beyond the ability of the average seventh-grade boy.

Figure 37 is a much more difficult piece of work, and requires rather clever workmanship. The book motif itself is here used from which to develop a book end. The carving of the lettering can be nicely executed in level-surface carving, it being particularly well adapted to this work. The carving of the book

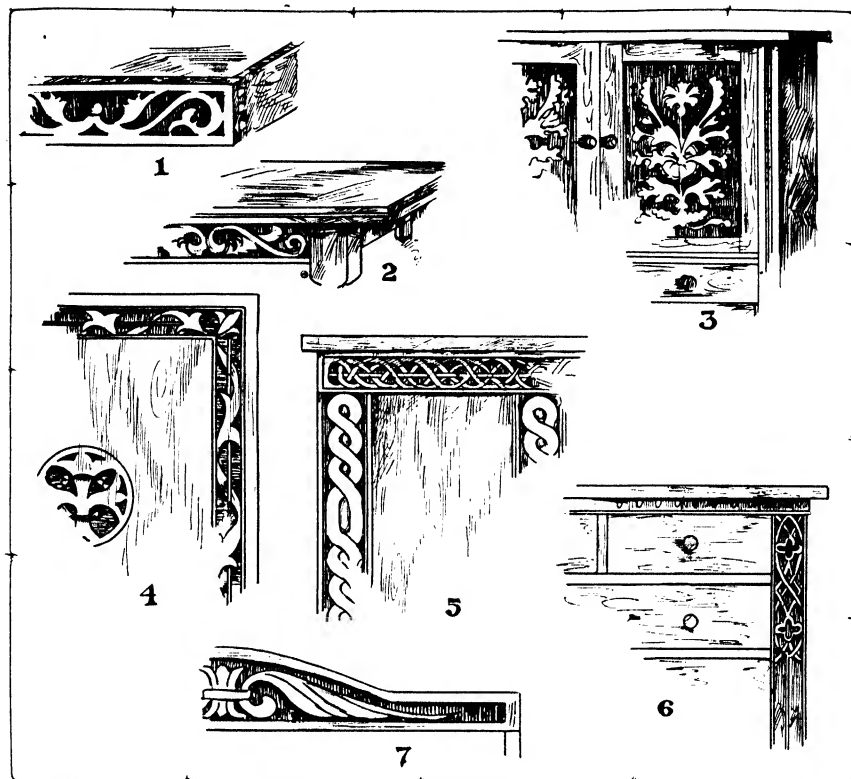


Fig. 35. Showing some applications of designs to actual work,
as taken from Figure 34

shape presents some difficulty on the ends of the book, not only to get the apparent covers worked out, but to suggest the leaves of the book. The brass support extends back under the books and completes the project, or the brass support may be left off and the pieces heavily weighted.

Figure 38 suggests a swivel picture frame. The size of this frame must, of course, be adapted to the size of the picture for which the frame is to be used. This style of frame may be made to hold two pictures — one on each side. Provision will have to be made, however, for getting the glass in place. This may be accomplished in several ways: (a) the frame may be made with a removable front section held in place with ornamental screws; (b) one side of the frame may be made removable, being held

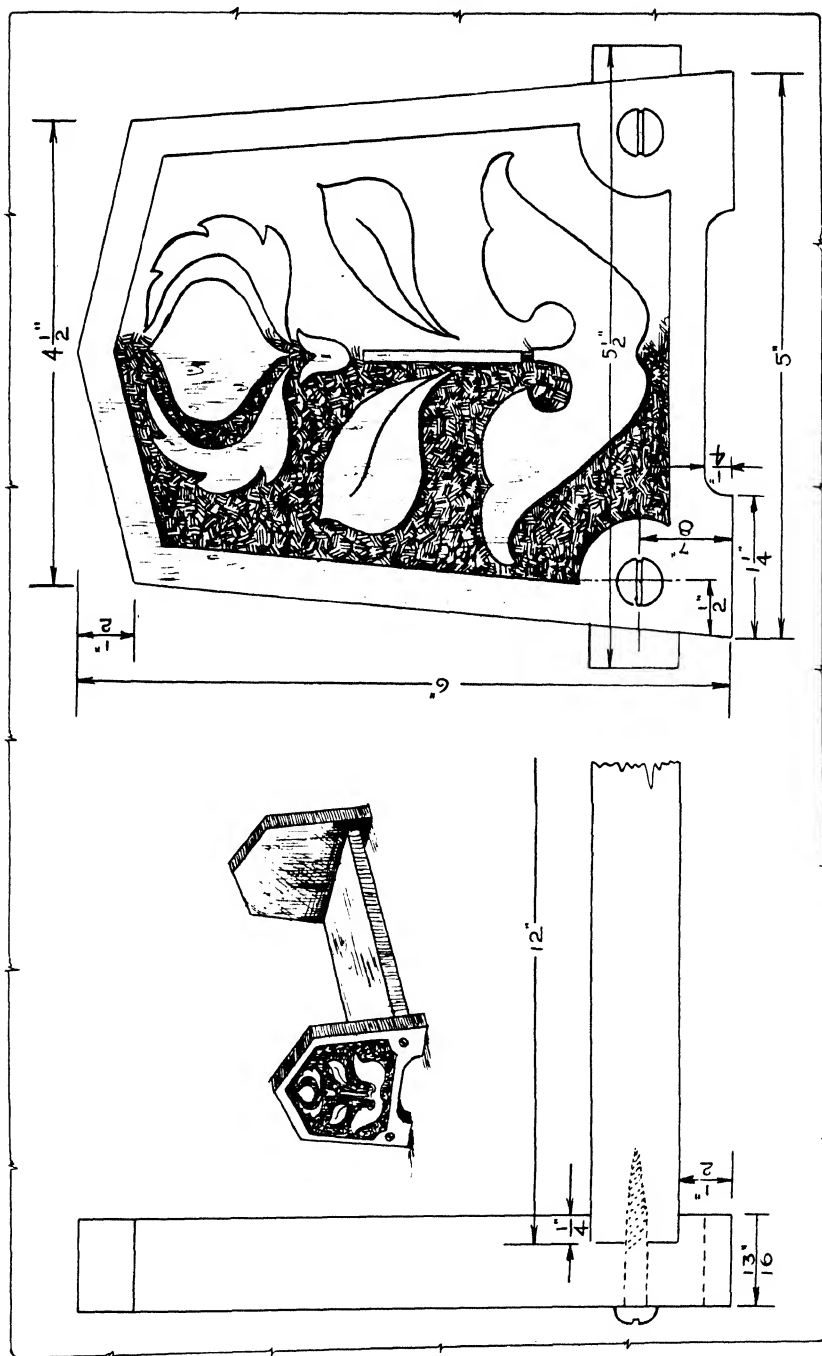
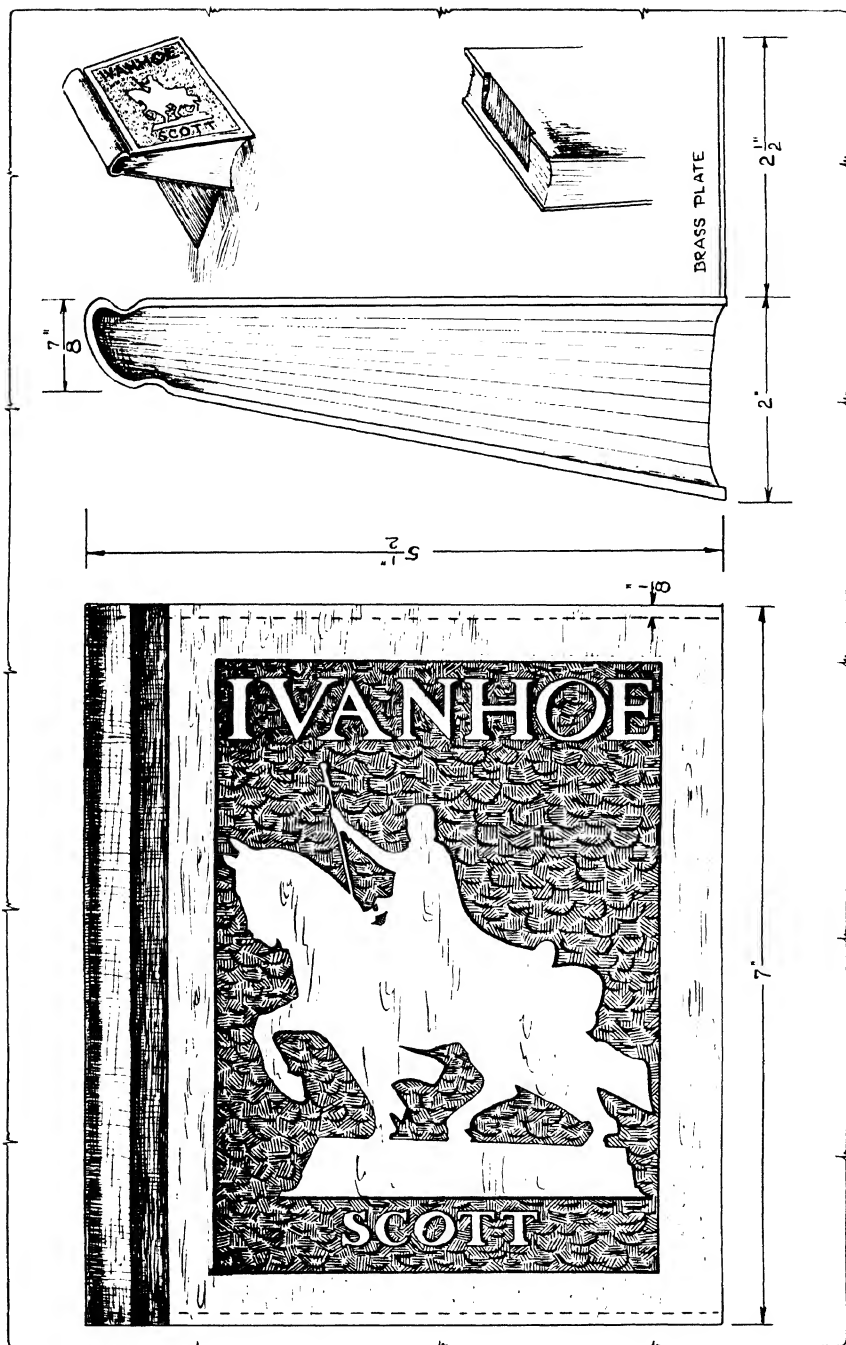


Fig. 36. A carved book holder



Adapted from *Boys' Busy Book*, Chelsea Fraser, T. Y. Crowell Co., New York

Fig. 97. The book motif itself used in a book end

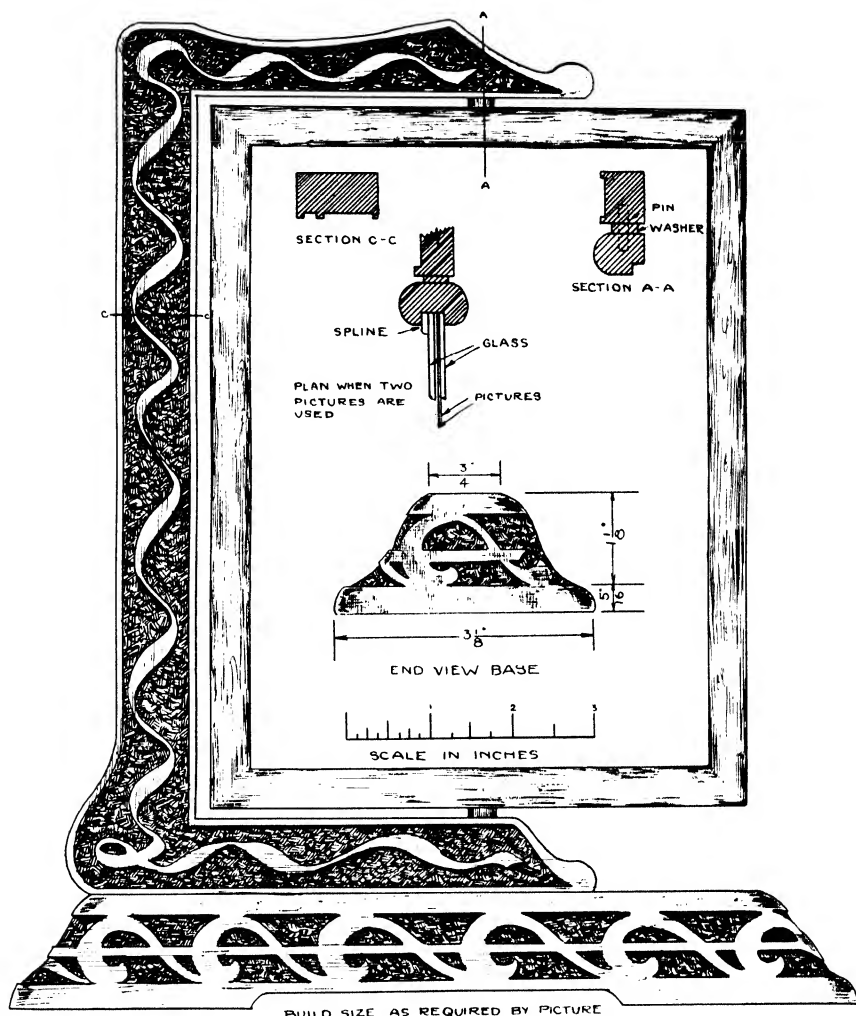


Fig. 38. A swivel picture frame

in place with screws; (c) a slot may be cut in one side sufficient to admit glass and pictures. In any event, the use of a spline is suggested in this frame, as shown in the small detail, to insure a neat, firm fit. If an easel frame is desired, this same design can be used for the base. Such work as this is rather delicate and requires care in making.

Figure 39 is a small piece of furniture of unusual utility in

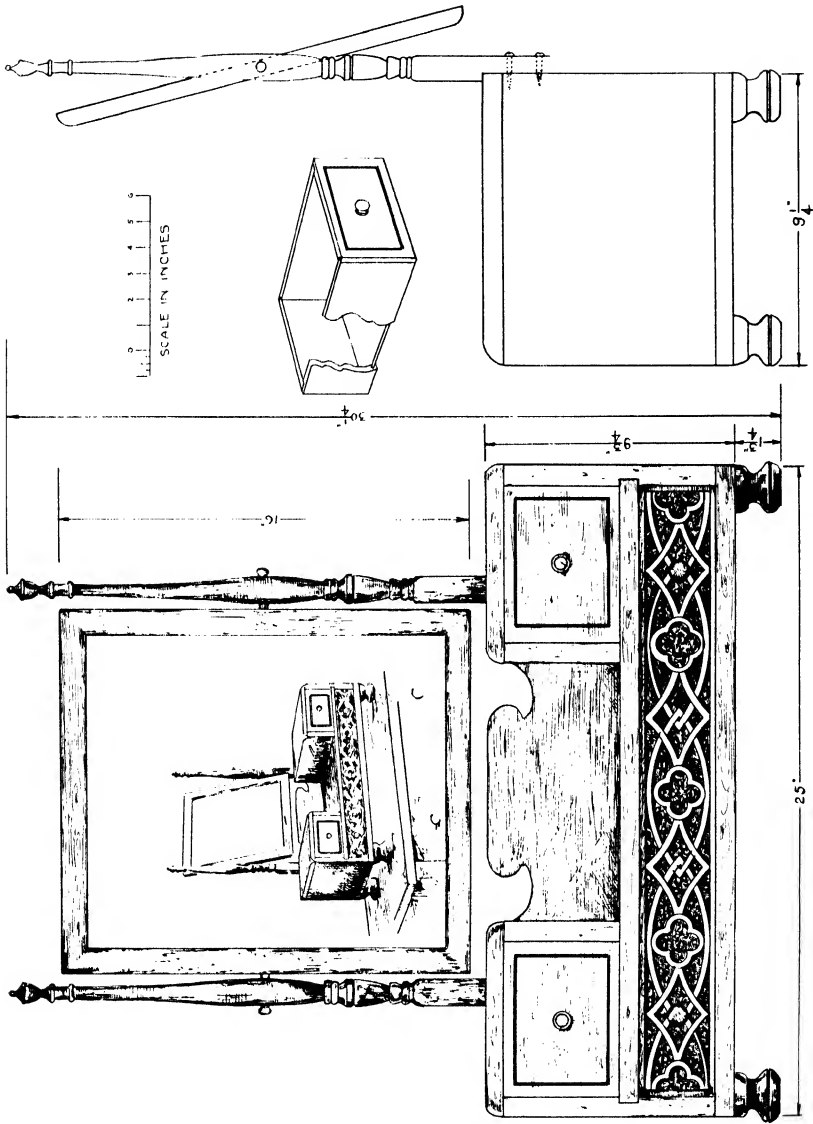


Fig. 39. A vanity dresser

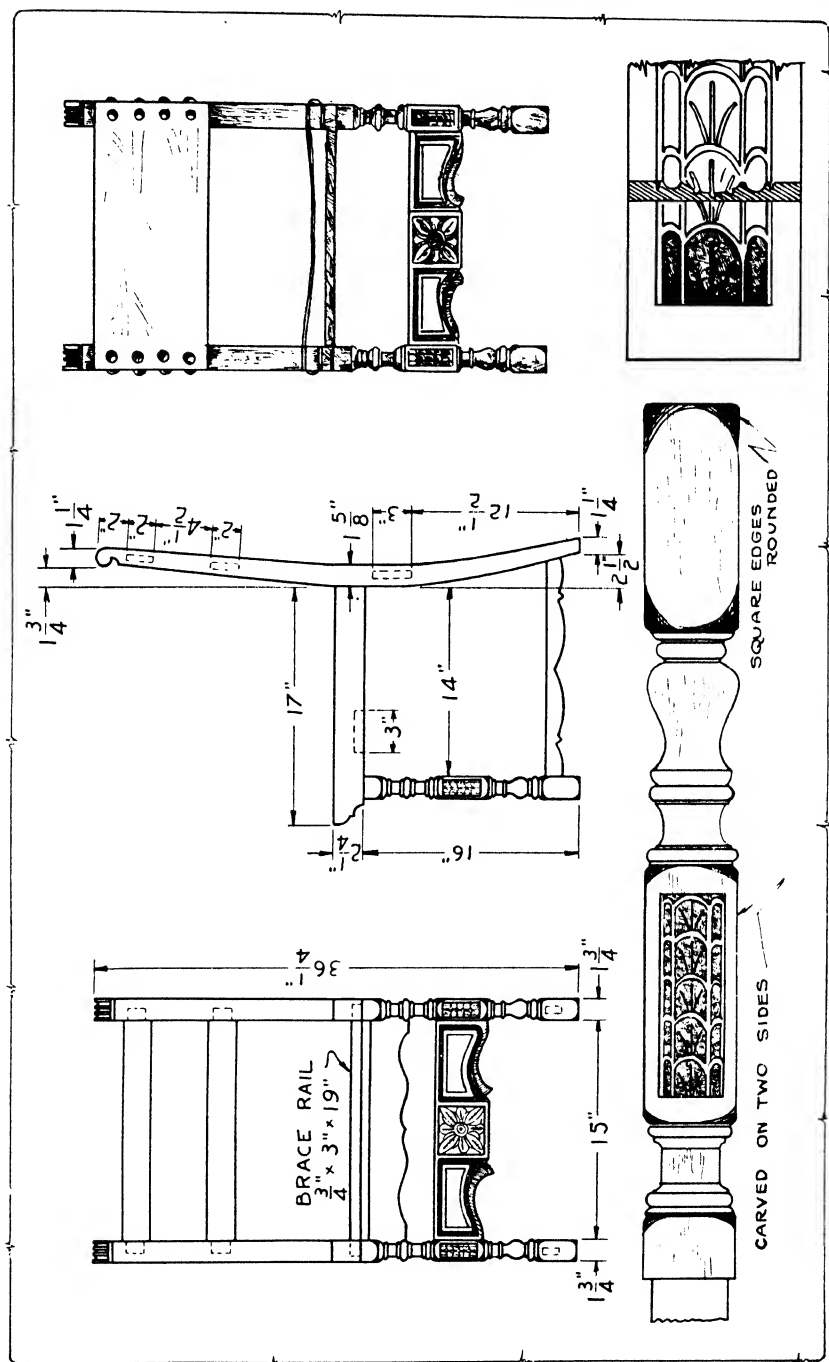


Fig. 40. Details for the Spanish Renaissance chair

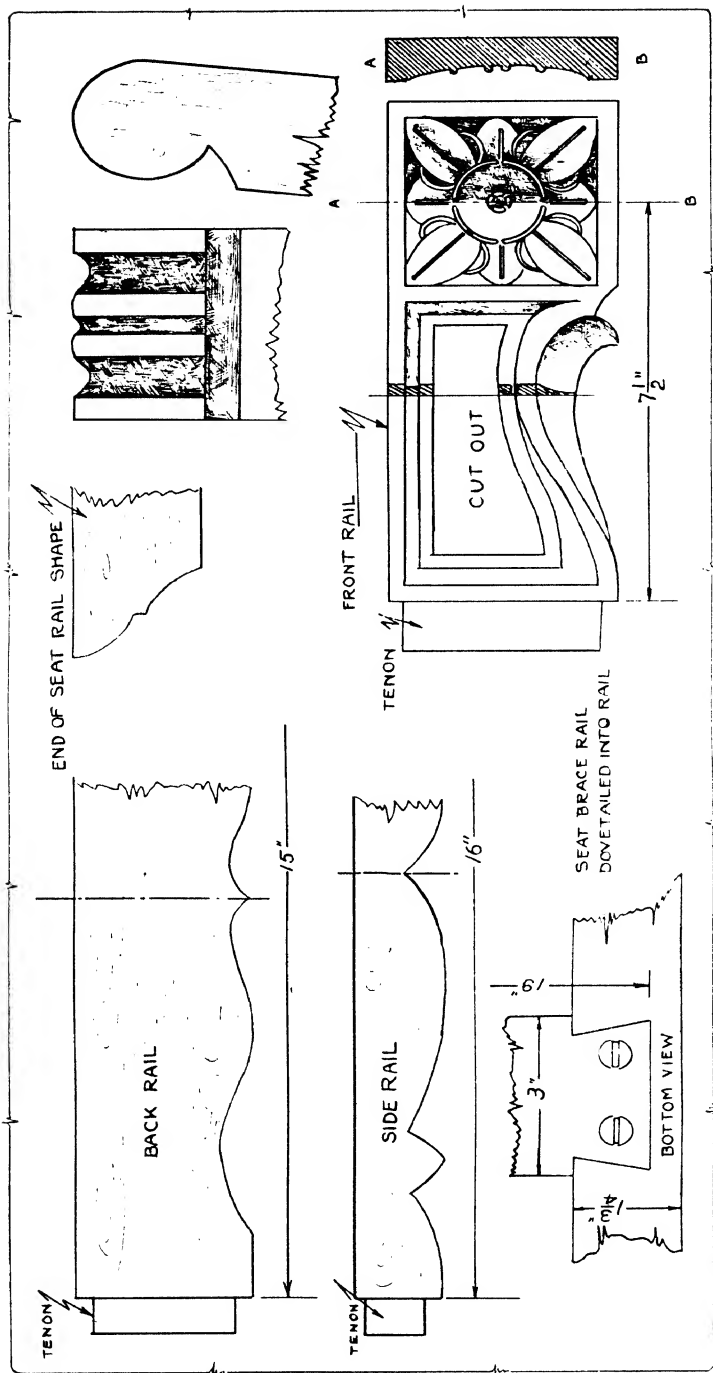


Fig. 40a. Details for the Spanish Renaissance chair

the home. It may be placed upon a table as a vanity dresser, or on a chest of drawers for use as a shaving cabinet. When well worked out, in mahogany or walnut, it is very attractive. Any mirror of suitable size may be used. In making it, the mirror is purchased first, and then the rest of the piece is made to suit. A small project like this should not have too much ornamenta-

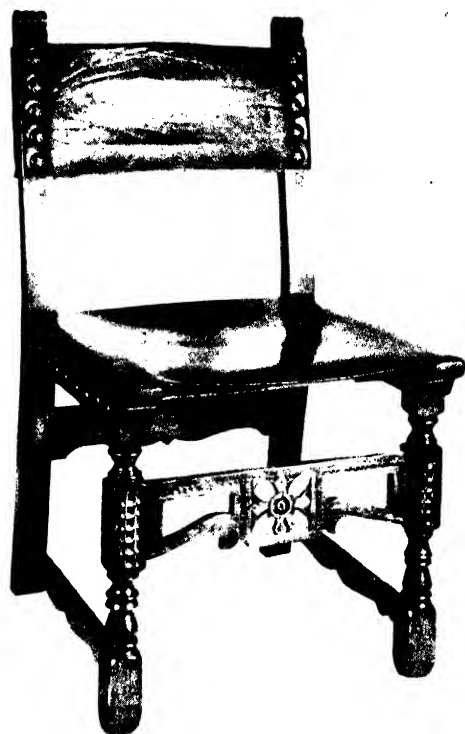


Fig. 41. Spanish Renaissance chair

tion. A little carving is all the decoration needed. The plainness of the rest of the surfaces makes it so much more attractive.

In Figures 40 and 40a are the details for making a Spanish Renaissance chair, which is shown completed in Figure 41. It is presented in rather more than usual detail. The carving shown in the front and sides of the legs is of the Byzantine shell pattern. This is of Mohammedan origin and is much used in furniture of this type. This pattern should be worked out on a practice piece

before undertaking to work on the chair. Spanish chairs were never upholstered in the sense of being *stuffed*. In the chair shown, for instance, a piece of heavy cowhide is used for the seat and the back. The seat, it will be noted, is stretched hammock-like between the two side rails. Brass nails with large heads are used to secure the leather, at the same time ornamenting the chair.

This chair is designed for use as a dining chair. It should be made of white oak, and stained Spanish brown. Spanish furniture is not varnished; it is stained, given a very *thin* wash coat of shellac, and waxed. Rottenstone often is dusted into the grain of the wood to give the appearance of age.

In carving one must learn to work from *one* position and to use the chisels and gouges for cutting in any direction. The beginner must not form the habit of walking around the work, or constantly shifting the position of the work on the bench. Experienced carvers remain in one position.

Chapter V

CARVING MODELED IN RELIEF

While this type of carving is more difficult than any of those previously studied, it is also true that it is more interesting and possesses greater artistic possibilities. It is presented in its simplest forms, and yet offers designs and suggestions that have the most pleasing and artistic effects if well developed and carefully worked out.

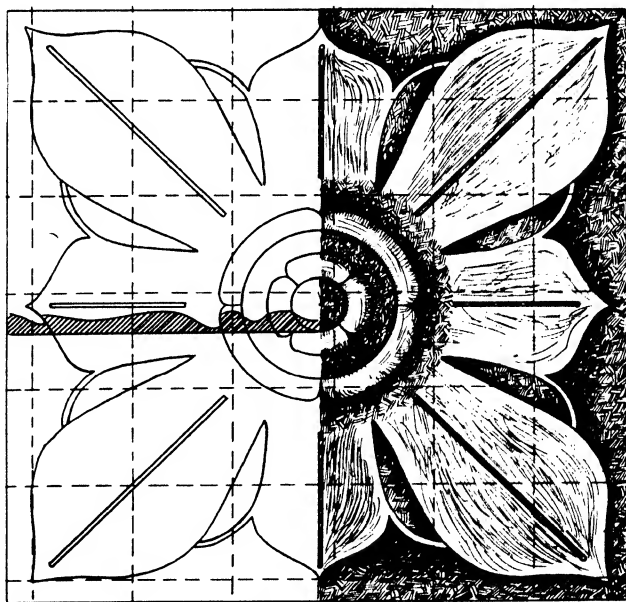


Fig. 42. A design for an exercise in low-relief modeling

Figure 42 is an introductory design for practice. However, a much simpler design may be taken, if the student so desires, or he may work on an exercise consisting of any single part, as, for instance, the development of a single leaf.

For this work a piece of wood of even grain, 8 in. square, is used. This allows a 1-in. margin around the design which is worked 6 in. square. Later, in actual practice, the design and modifications of it may be used to fit spaces of widely varying sizes and shapes. The squares shown in Figure 42 are 1 in. These squares are laid out and the design is reproduced by drawing from point to point. Then, with carbon paper, the design is



Fig. 43. Design modeled in plastic clay, and the finished piece

traced on the wood as shown in Figure 26. Next, the background is shaded, reproducing the modeled effects in the drawing by shading with a soft drawing pencil. One half of the design in Figure 42 is shaded in this way, and thus serves to give the student the idea of the shape and depth of his work, in its third dimension.

Every wood carver soon learns that he must acquire the ability to draw quickly on wood with firm, broad strokes of the pencil. The more difficult the piece of work to be undertaken, and the more demands it makes upon the student's ability to visualize, the more necessary it is to carefully develop it first in pencil, or better yet, to first work it up in a clay model before undertaking to carve. Just as the sculptor in stone first works up his model in clay, so the beginning carver, or the experienced workman, when undertaking a new and difficult piece of work, finds it helpful to model it first in a plastic material.

The right-hand illustration in Figure 43 is a clay model of the exercise, and shows that in making a design, where one half is a duplicate of the other, it is not necessary to finish the whole

model in clay. The left-hand illustration in Figure 43 shows the wood carving completed. This piece of work was made by a 14-year-old boy who had but little previous experience.

After the pattern of the design in Figure 43 is traced on the wood and shaded as suggested, the contour is outlined, as shown

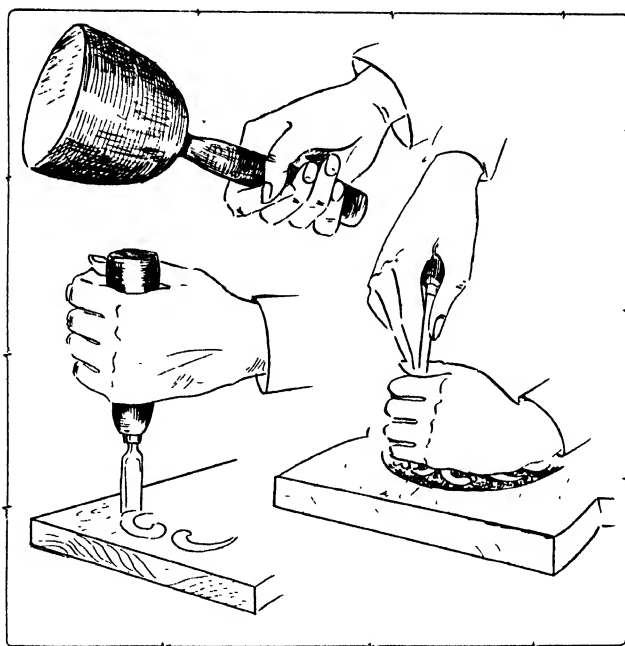
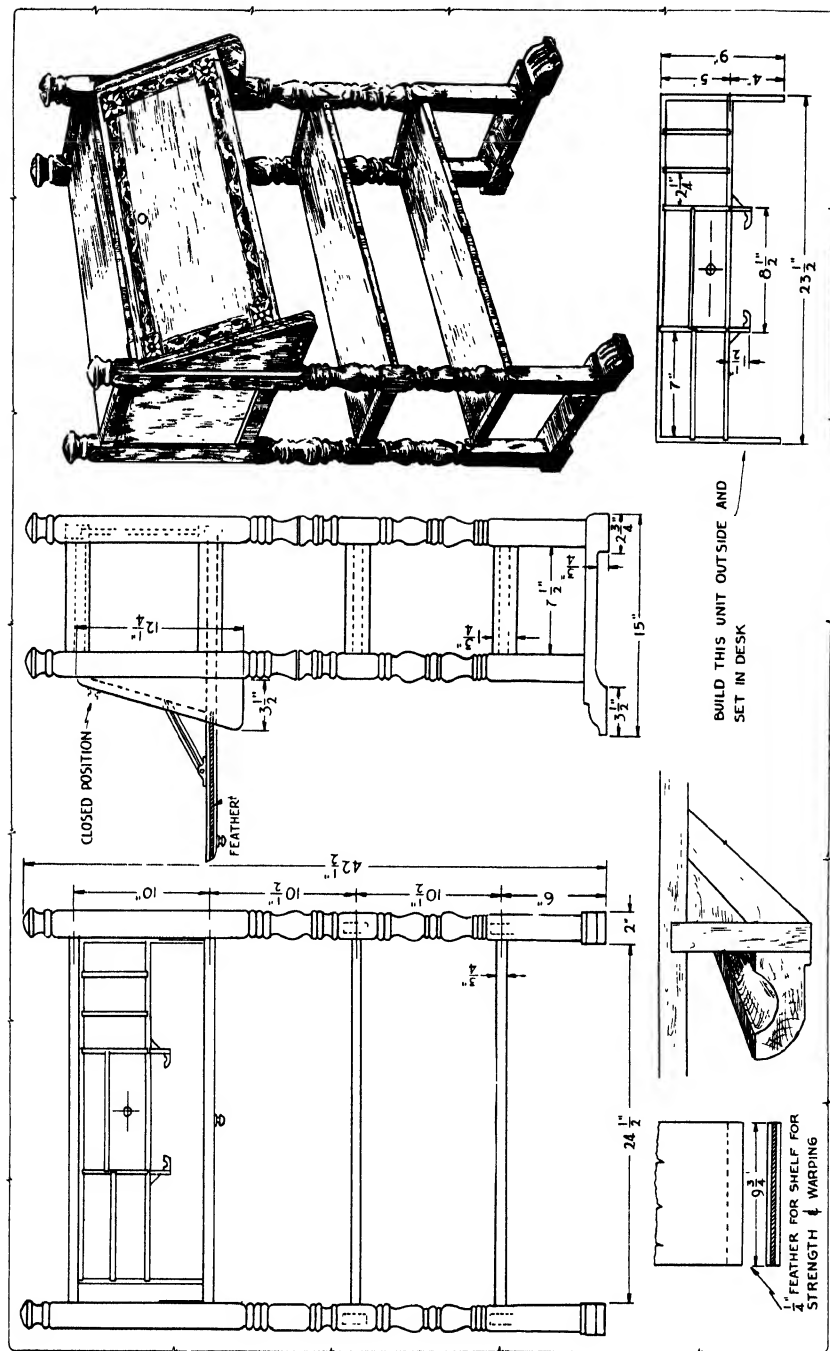


Fig. 44. Cutting the outline of a design and paring away a background

in Figure 44. The work of outlining is completed before any other cutting is done. If possible, a gouge with a *sweep* that will fit the arc of the design is used. If this is not possible, a small carver's chisel is used, cutting only a small part of the arc at a time. The tool is placed on the outer edge of the line and tilted so as to cut away from the pattern. If this edge is cut straight up and down, or slightly undercut, it is likely to chip. In this outlining operation it is well to cut all lines running *across* the grain first, otherwise there is danger of splitting. The depth to which this outlining should be done is determined by the



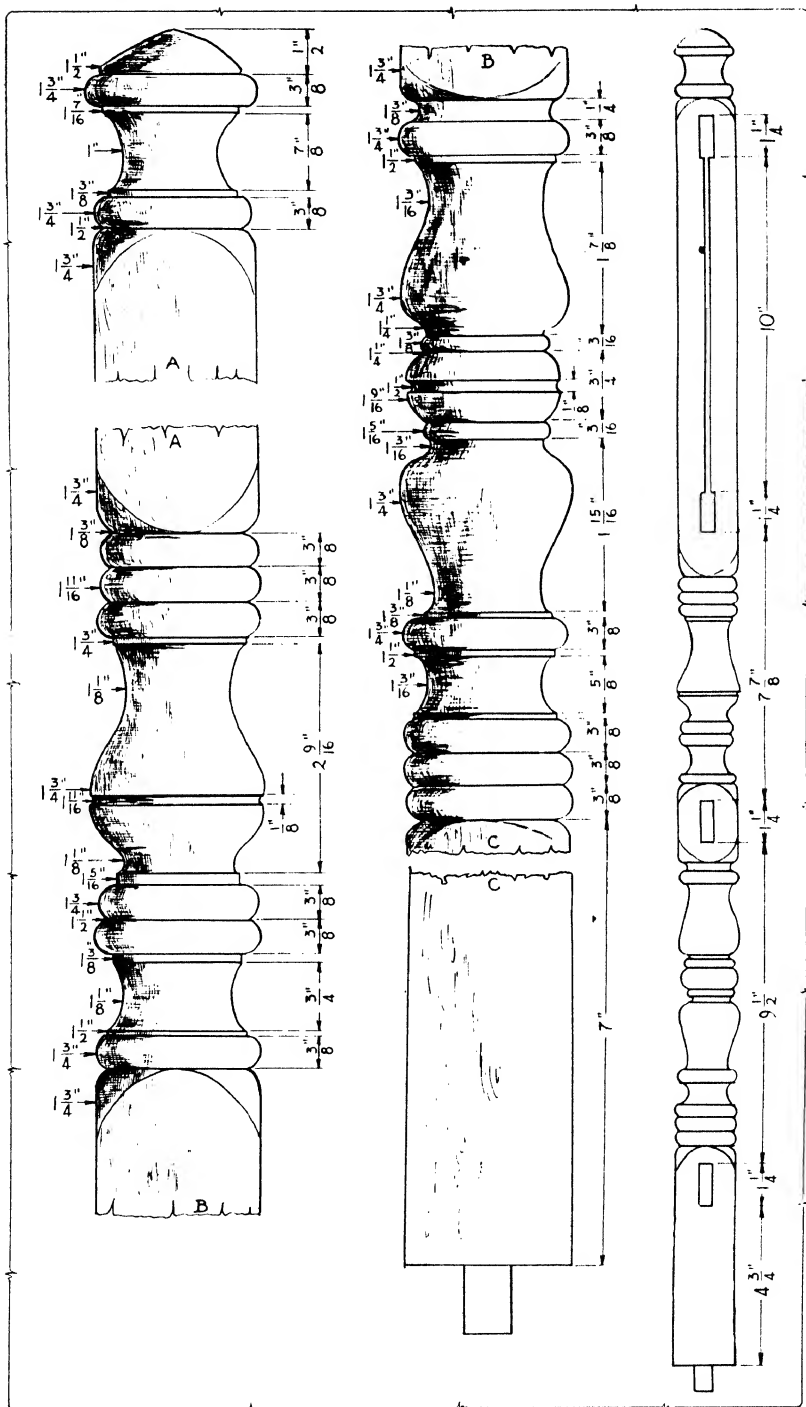


Fig. 45a. Details for the student's desk

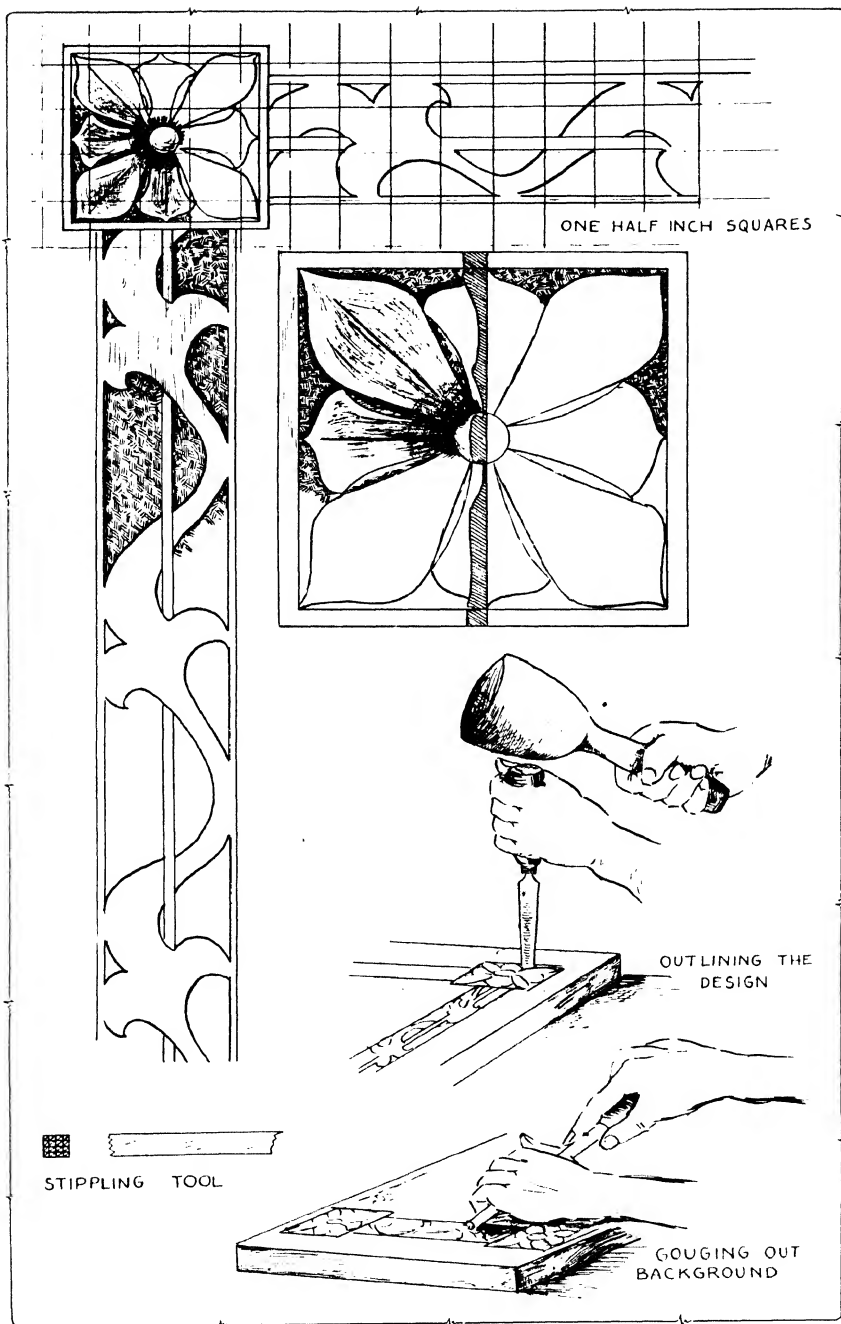


Fig. 45b. Details for the student's desk

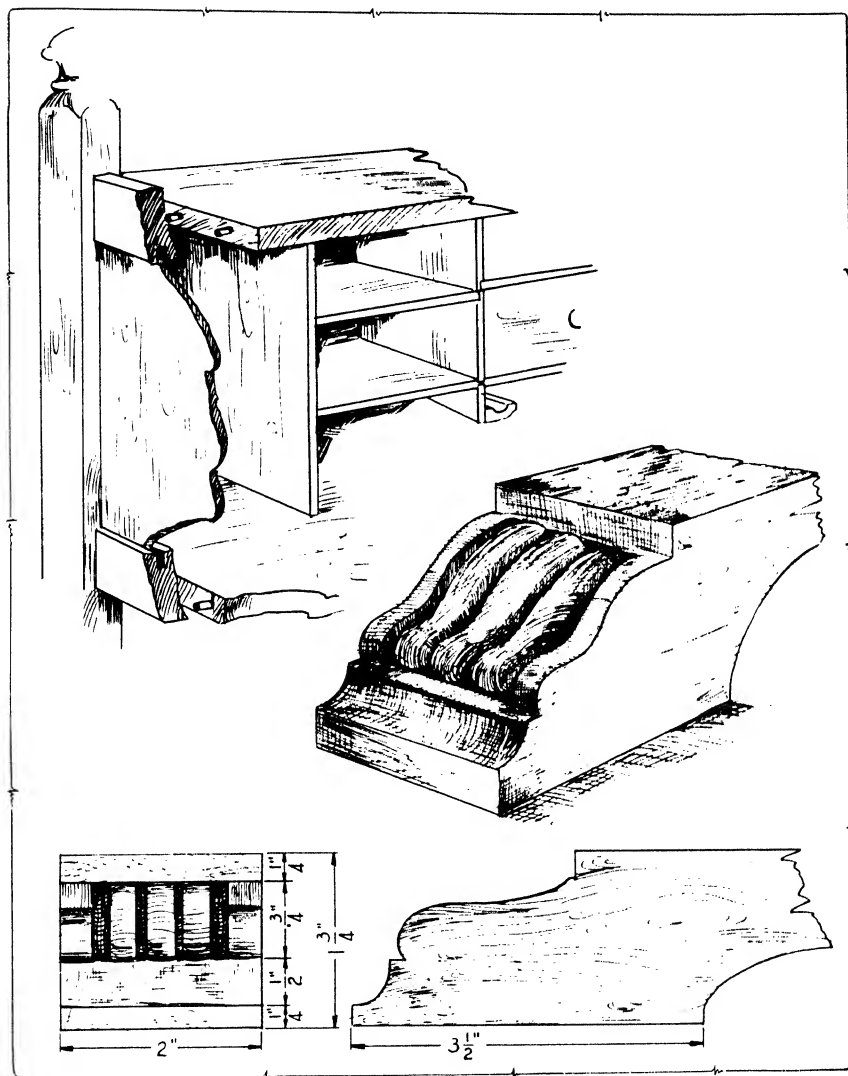


Fig. 45c. Details for the student's desk

amount of relief desired. In general, the student should do his first work in *low* relief, even though he is tempted to do the opposite.

Having outlined the contour of the design, the next step is to take a gouge with a very flat sweep and carefully begin paring away the background. Better results are obtained if the ground

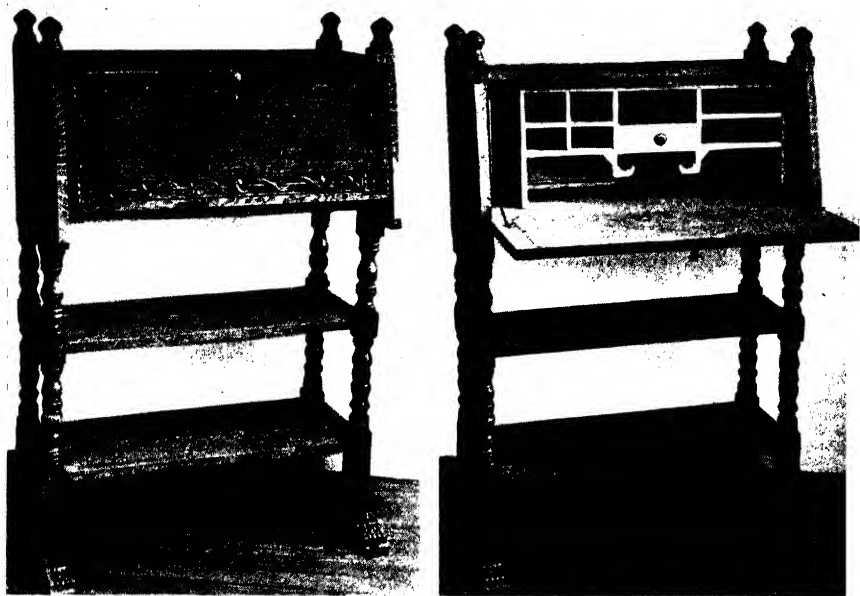


Fig. 46. Two views of the completed student's desk

is taken down a little at a time, over the entire design, rather than by finishing it first in one place. The background need not be worked down perfectly smooth, as a few indications of tool marks in the ground add to the effectiveness of the work.

The next step is to begin working out the design. A gouge with a very flat arc is used for the leaves, and the small work in the center is cut with gouges with a much *quicker* sweep. The same method is used here as in cutting down the background — the same rule holds good in both instances: waste the wood away slowly. The work should be finished with the tools, and as little sanding, scraping, and rasping as possible, should be done.

In this piece there are *in-lines*. By this is meant lines wholly within the design. In this instance the in-lines are the veins of the leaf. In other work the in-lines may be the scales on a dragon, plumage of a bird, hair on an animal, etc. The in-lines in the present work are made with the No. 8 gouge shown in Figure 33.

In carving, the student must learn to work his wood in the easiest way and to the best advantage. He must discover which way it cuts best and not tear up the grain. The beginner should

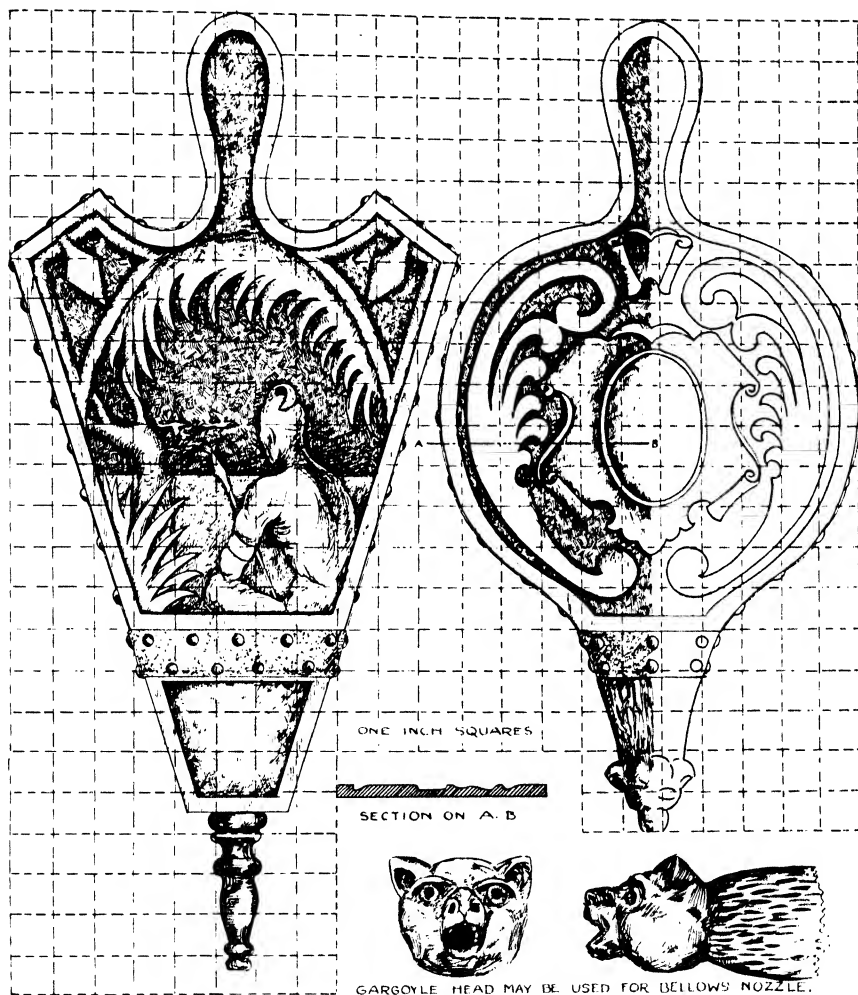


Fig. 47. Showing some shapes and designs for bellows

learn to cut in clean, firm strokes, and not depend upon wiggling his tool through the wood. The hand nearest the work is the *control hand*; the other hand furnishes the power for the forward stroke. The control hand both resists and guides the forward movement, so that in carving there is little opportunity for a tool slipping. If this were not true, the work of weeks might be spoiled by one awkward stroke. Of course, even the most skillful workman will make errors in cutting, as, for instance, chip-

ping off pieces of the designs. The carver soon becomes adroit in overcoming these troubles, however, either by making slight changes in the design or by patching in new material. Later on in the work, as the student progresses, the ability to use a *sweep-stroke* cut should be acquired.

Figures 45 and 46 show a project that is particularly suitable for carving, and very useful as an article for home use. It is designed to be used as a student's desk, affording not only space for the usual school materials, but for books as well. Since this book

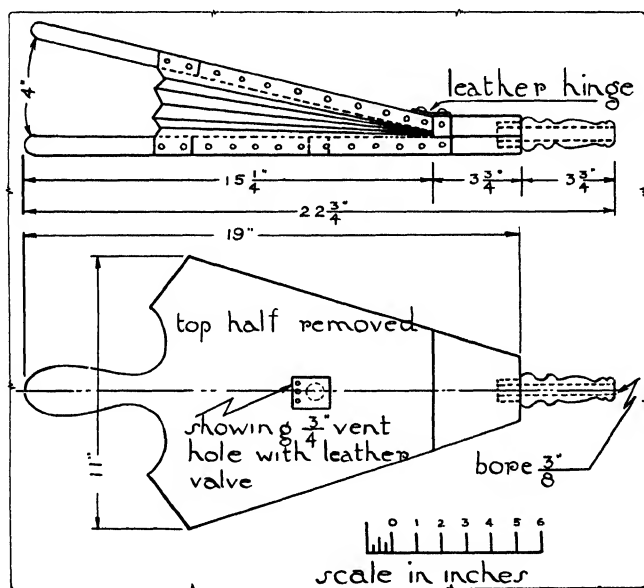


Fig. 48. Construction details of bellows

is designed for amateurs, the illustration of this desk gives more detail than is usual in the illustrations of other articles in this book, in order that the construction of the desk may be fully understood.

Figure 46 shows one view of the desk closed, giving the student a good opportunity to study the working out of the carving design. It will be noted that the design used is worked out slightly different from that suggested in Figure 45. It is these individual differences that give some of its interest to carving. The view

showing the desk open in Figure 46 gives an opportunity to study the pigeonhole layout.

A colonial fireplace bellows is shown in Figure 47, in two different designs and shapes. It does not represent the long period of work to get results that many hand-carved projects do, yet few

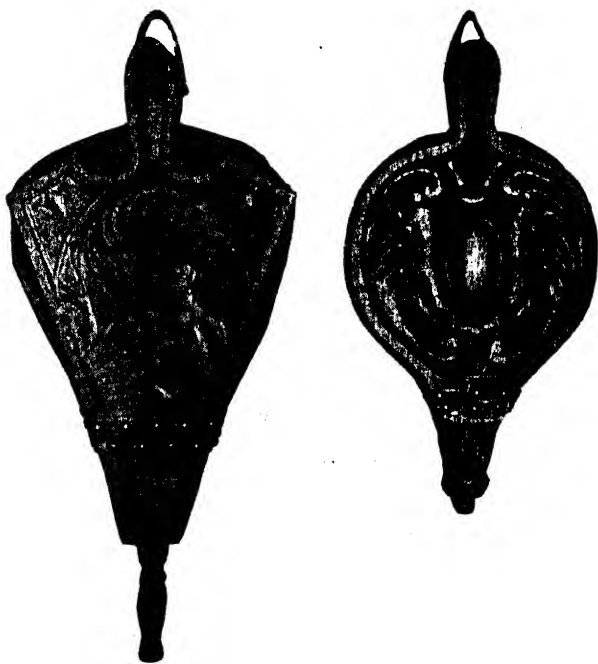


Fig. 49. Finished bellows

pieces of work are more attractive when well done. Of the two designs shown, the scroll work is the easier. The gargoyle head presents a bit of full-figure carving, but will not prove difficult if first worked out in clay. Figure 48 gives the construction details for making the bellows. Many different shapes and an unlimited number of decorative designs may be used. Figure 49, shows two of these bellows as worked out in high-school classes by students with a very limited amount of training.

Figure 50, a *vargueno* or fifteenth-century Spanish writing desk, is a good example of low-relief work, even though it was made by an amateur. The table also is hand carved. Figure 51

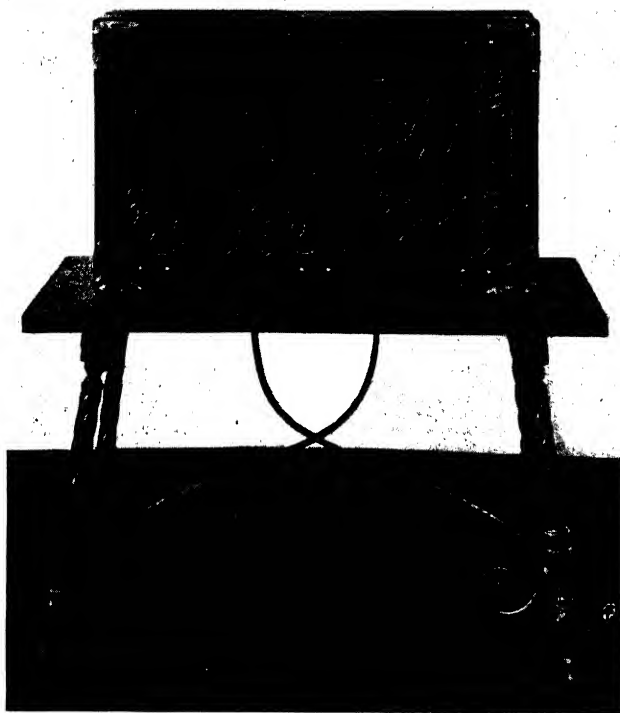


Fig. 50. Low-relief modeled carving on a Spanish *vargueno*

shows a detailed drawing of the rather excellent carving design, which may be adapted to many uses, either in whole or in part, on a smaller surface.¹



Models of work made by the students in the School of Arts and Crafts, Lucknow, India

¹This design is adapted from a much more elaborate design made by the Granada Shops, Miami, Florida.

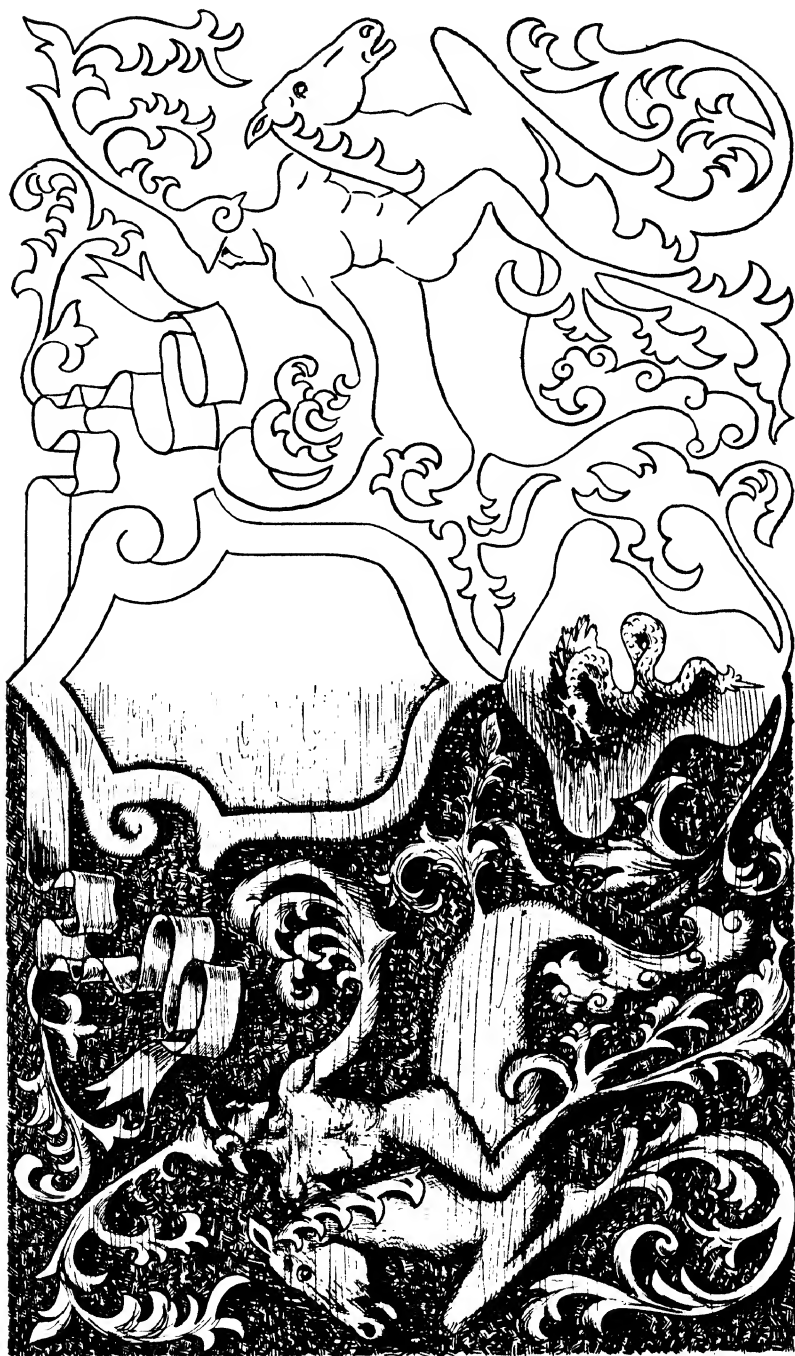


Fig. 51. Design used on *vargueno*

Chapter VI

CARVING MODELED IN RELIEF (CONTINUED)

Relief carving adds the value of light and shade to the work, which is possible only to a very limited extent in the other types of carving. The beauty of relief carving is not only in its forms, but in the lights and shades developed from its form of execution. The amount of relief to be given is determined by the nature of the subject, the ability of the artist doing the work, and the relative position the piece of work is to occupy in use. For instance, if an ornamental frieze to go around the upper part of the wall of a room, is to be carved, it must necessarily consist of large figures carved in bold relief, directed in such a way as to be effective and pleasing from the line of sight. If the object is considerably below the line of sight, the carver must also take this into consideration; while an object on a level with the eye may be treated in low relief and in more delicate and finer lines which would be lost to more distant vision. When carved work is photographed, the work is side-lighted so as to get full value of the depth of the shadows.

The Acanthus Leaf

This design grew up out of classic Grecian architecture. Its use came into pre-eminence as a motif in sculpture because of its use as the characteristic decoration on the capital of the richest and most ornamental type of Grecian column — the Corinthian column. It was taken up again by the Renaissance carvers and to the present time has continued to be the most popular design conventionalized from nature. One of the forms of the acanthus leaf as it appears on the Corinthian column is shown in Figure 52. It is worth while to study this design, of which the student will find many and varied adaptations used in all forms of graphic art. The “eyes” are characteristic of all acanthus adapta-

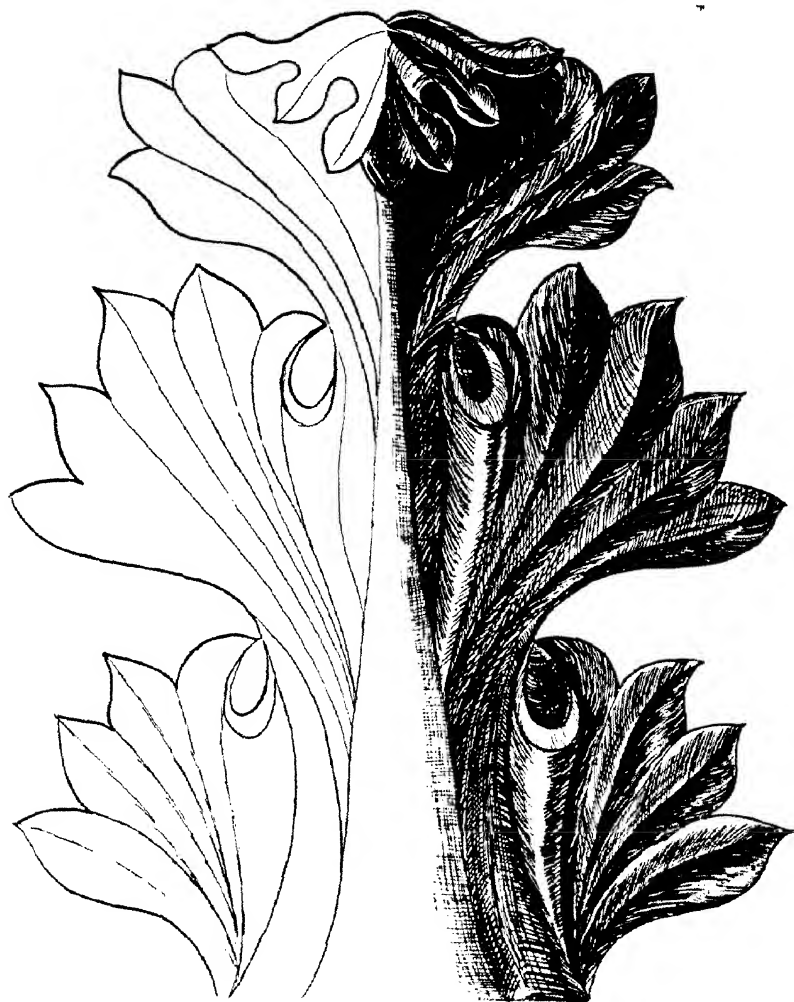


Fig. 52. An acanthus leaf as used on the capital of a Corinthian column

tions, and form an easy means of recognizing the acanthus motif in design.

Figure 53 shows several useful forms of acanthus designs. The one marked C may be used as a border design. A may be used as a single decoration; while B may be used as a center or corner decoration. With ability in sketching and carving the acanthus, the student of wood carving enters into the rich field of classic modeling. This motif has a wide application to use in many

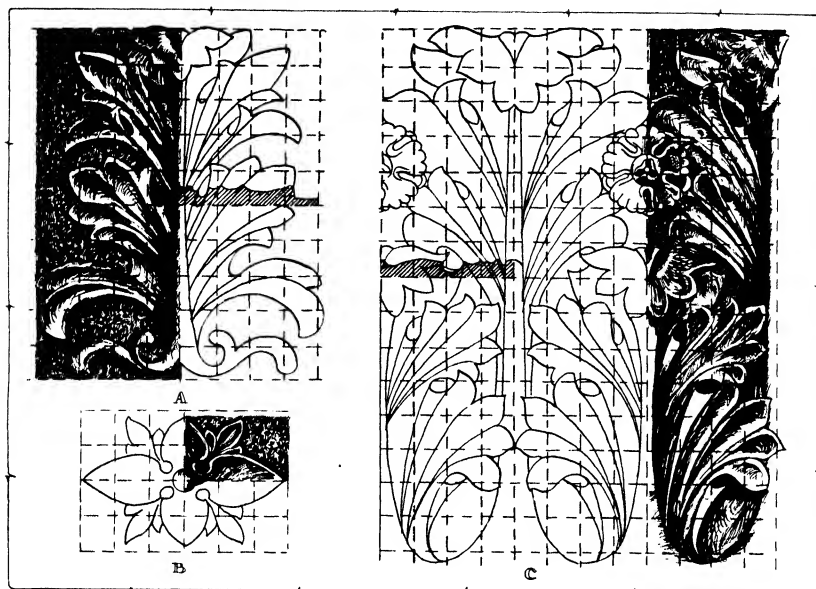


Fig. 53. Development of simple forms of acanthus leaf

forms, some of which are suggested in Figure 54. No. 4, for instance, shows a rather easily executed form used on the leg and stretcher of a table. Nos. 6 and 7 can be used for the same purpose. Much practice on the acanthus is essential before undertaking its use in finished work. No. 4 in Figure 54, or B and A in Figure 53 are not so difficult and can be used for practice. The pattern first is traced on the wood, using carbon paper, and then the detail is shaded. If the student has sufficient ability, it is better, of course, to draw the design directly on the wood, or work up the design without tracing. If the student lacks familiarity with this form, it is advisable to work it up in plastic clay or in a cake of white soap before undertaking it in wood.

Figure 54 also shows some applications of the design in Figure 42 in the preceding chapter. In the small box in No. 1, Figure 54, the full design is used on the top, and half of it is used on the sides. No. 2 is a wall chest made entirely of panels of this same design. As a matter of fact, it is well to have all students carve Figure 42 on the same size of stock, when using it as an exercise, so that the best pieces may be used to construct a wall chest as shown.

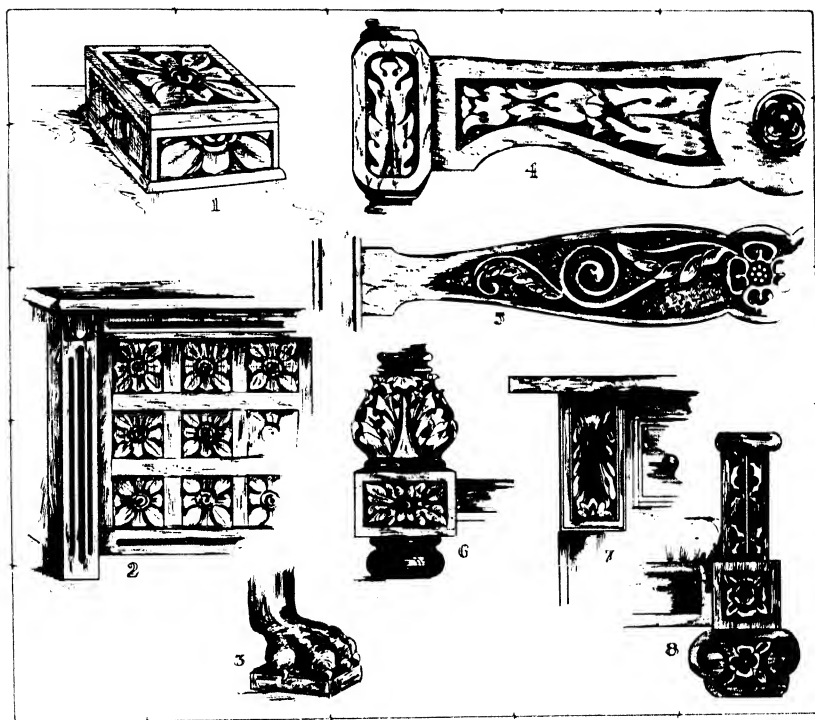


Fig. 54. Some applications of modeled relief carving

In working on the acanthus leaf, the student soon learns to use the *sweep cut*. When making this cut, the gouge moves forward by the pressure of one hand, and is drawn into a sweeping or sheer cut by the guiding or control hand, being either drawn toward or pushed away from the operator as it moves forward. The mastery of this cut is helpful in good carving, but skill in its use is more often acquired by earnest effort in execution, rather than by deliberate practice. This is proved by the fact that many old carvers use this cut without realizing it.

To work the leaves and lobes of the acanthus leaf, which are slightly hollowed, it is well to select a gouge which has the curve of the leaf.

Figure 55 shows a jewel casket with curved sides upon which two different types of acanthus leaves have been carved. It is supposed, of course, that the student will select the type of conven-

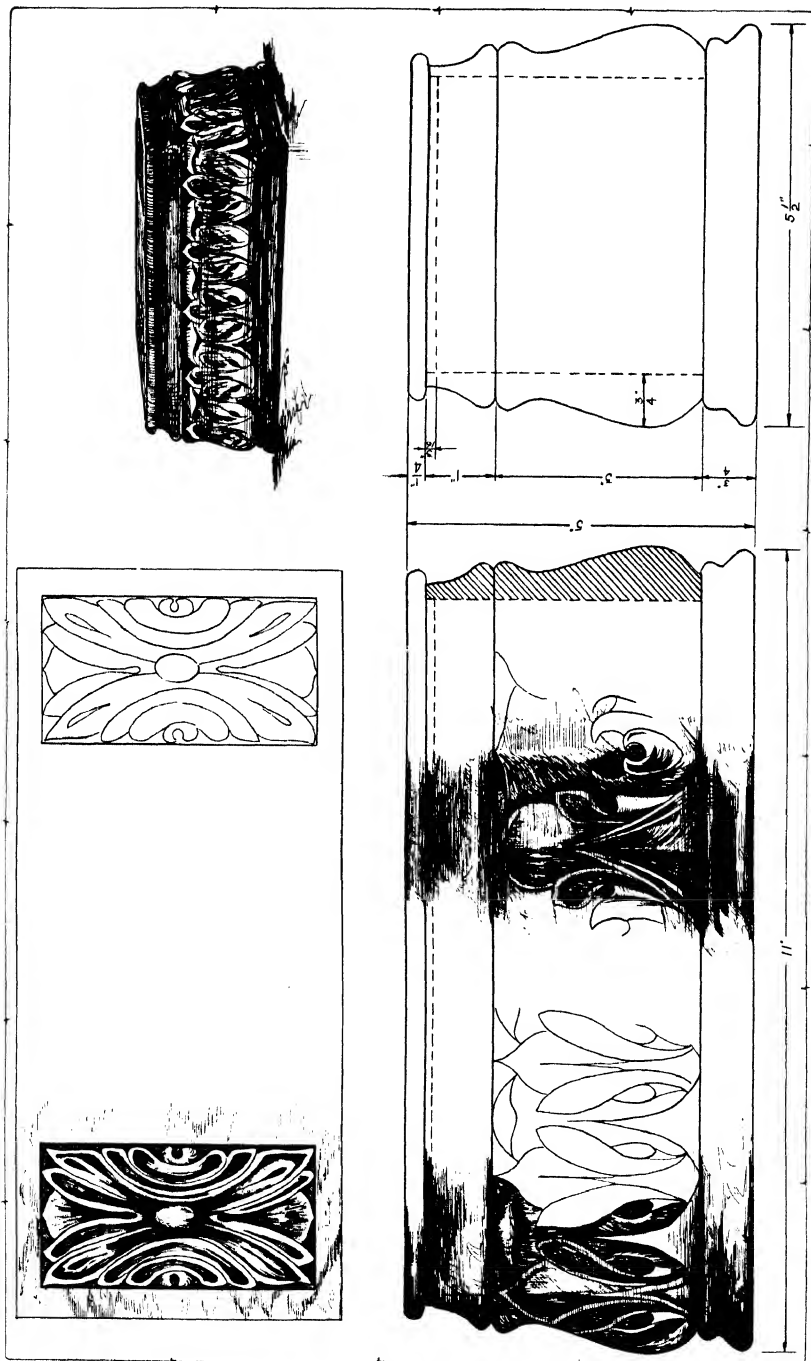


Fig. 55. A jewel casket

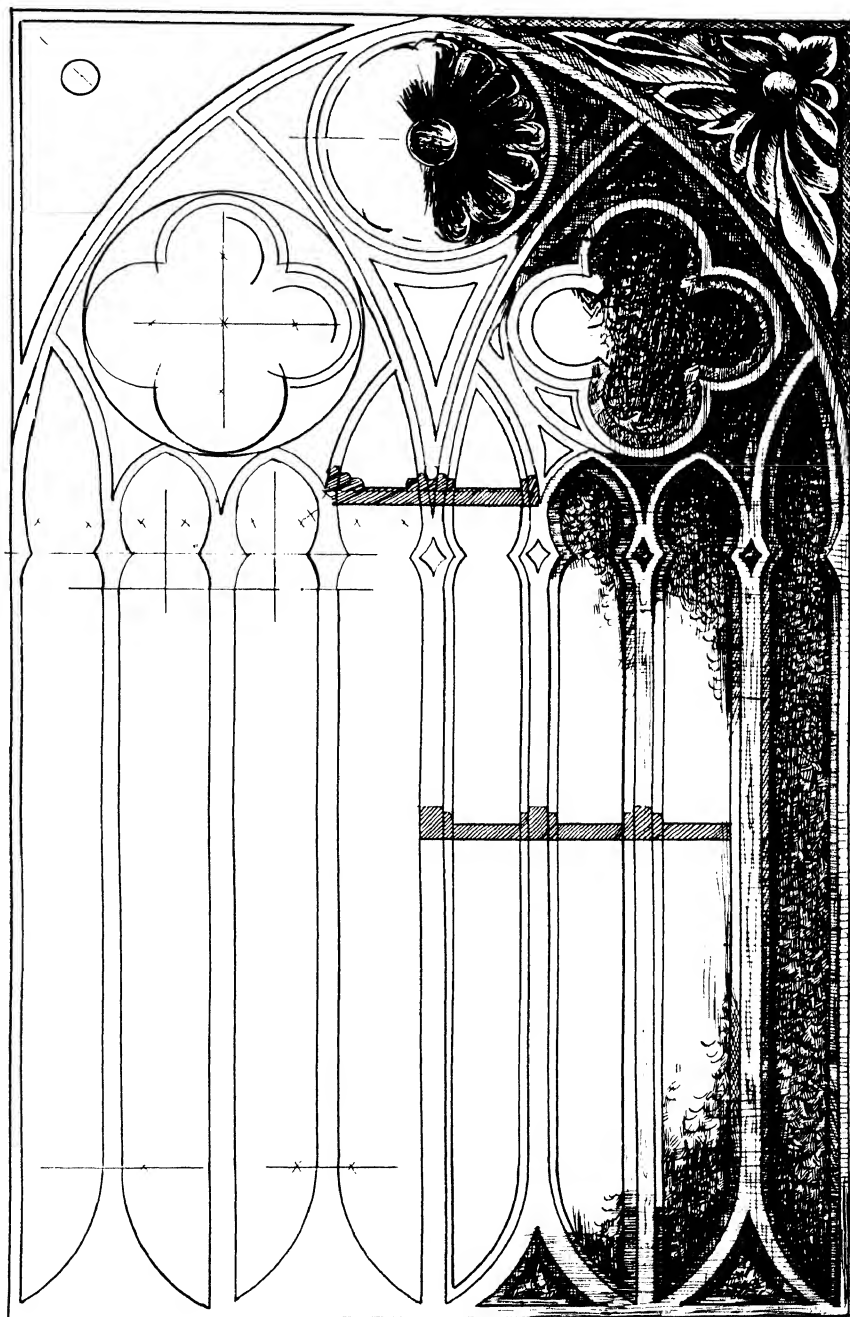


Fig. 56. French Gothic tracery design

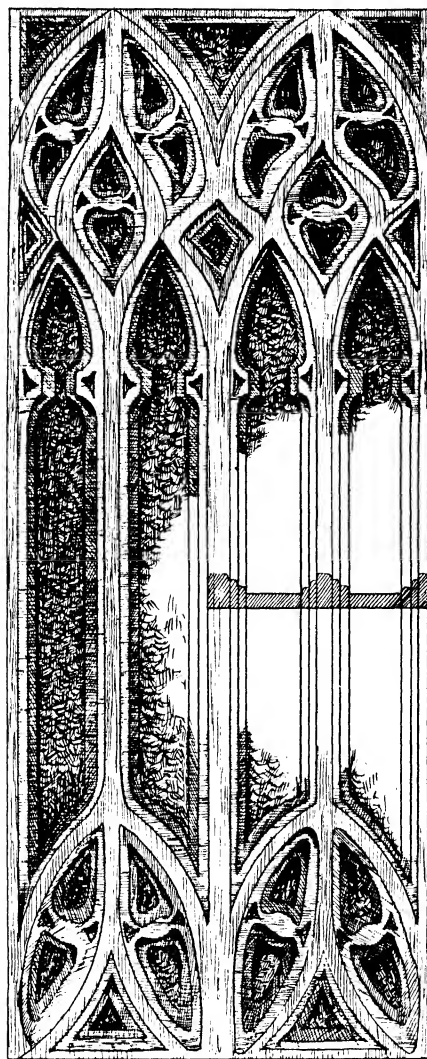


Fig. 57. A companion design to Figure 56

tionalized leaf that he can make best. The adaptation of the leaf to the curved surface should not prove difficult. In making this box, the two sides and the two ends are worked as a molding all in one piece, and are later cut up to form the sides and ends, which are set together with a miter joint. The box is made com-

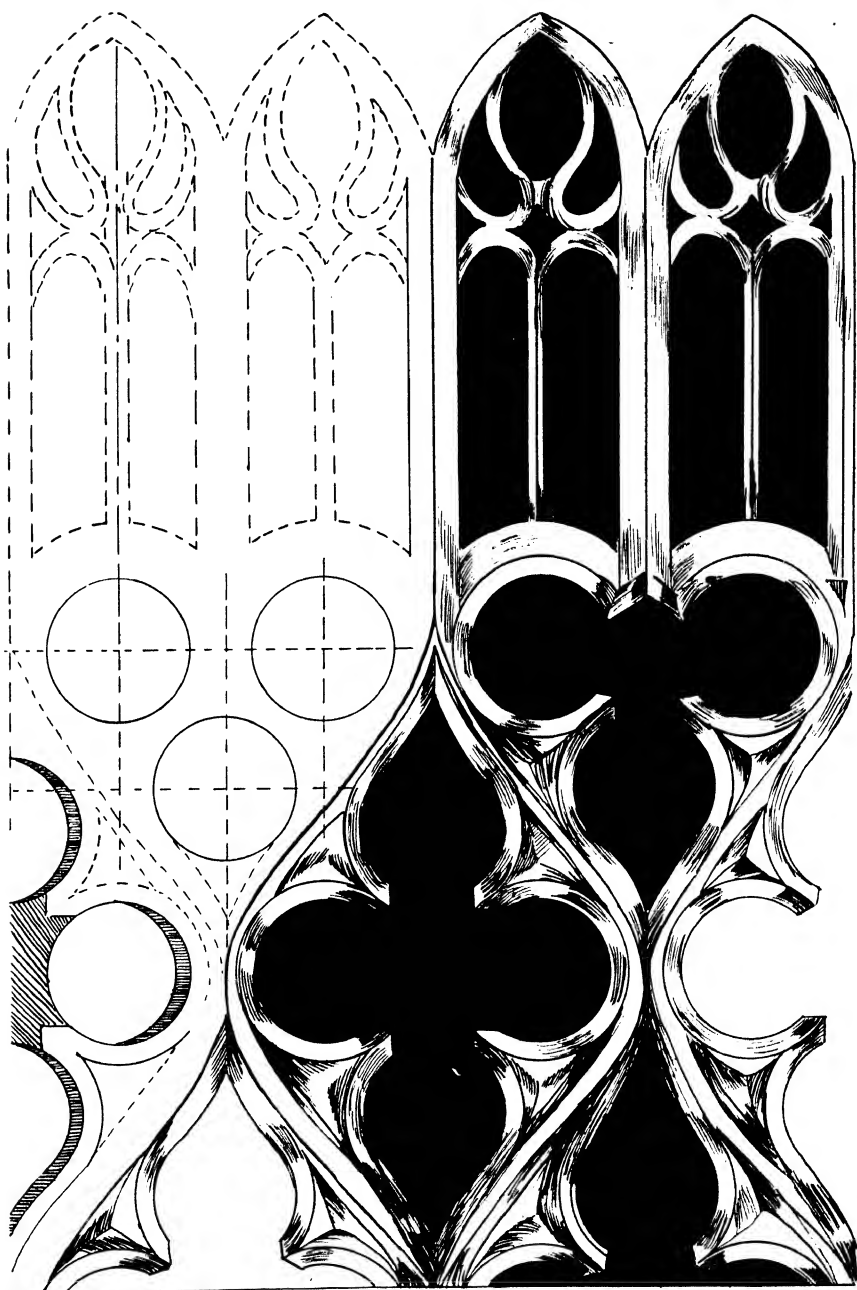


Fig. 58. An example of Gothic tracery

plete before being sawed apart to form the top and the bottom. To provide for this saw cut and the sanding of the cut surface, it is necessary that the molding made up for the sides is slightly wider than 4 inches. The case is then hinged and finished. After the work in relief carving is stained, it is important to highlight



Fig. 59. Showing Gothic tracery used on chest

the raised parts slightly with 6/0 sandpaper or 2/0 steel wool. This removes a part of the stain on the high parts, giving the effect of contrasting shades. Work finished in carving is not intended to be highly polished. A wax or rubbed oil finish is all that is required. Such pieces of work grow more beautiful with use and age.

Gothic Tracery Carving

The style of carving known as Gothic was, of course, derived from the style of architecture by the same name, and reached its height in the cathedral decorations in the fourteenth and fifteenth centuries. There are many variations in style and expression of the Gothic in different countries and different periods of history; it may be recognized, however, by the pointed arch.

Figures 56 and 57 are examples of French Gothic tracery. A tracery design is one that has no definite weight to support.

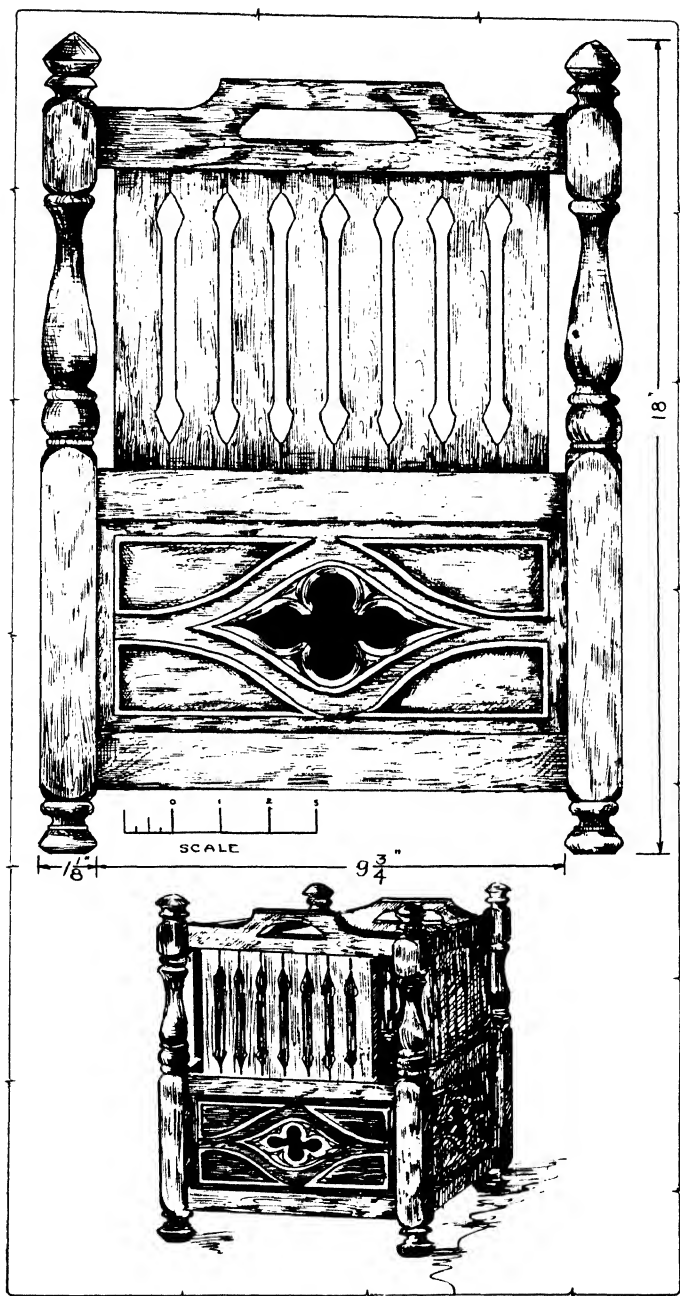


Fig. 60. A wastebasket with a dominant Gothic note

These designs were derived from the same motif as the cathedral windows which they strongly resemble. It is possible to resort to the use of boring, the fret saw, and in some instance the shaper, as mechanical aids in this work, the possibility of which is clearly evident in Figure 58. This repeat design is known as "Gothic pierced work" and may be continued to fill any given space. It will, of course, have to be backed up by a supporting ground.

Figure 59 shows a Gothic chest decorated with the designs shown in Figures 56 and 57, which are well adapted to chest decoration. Many changes in the structure of the chest itself are, of course, possible.

Figure 60 is a wastepaper basket worked up with a Gothic panel inset in the lower part. Generally speaking, Gothic treatment is not adapted to modern furniture or to modern homes.

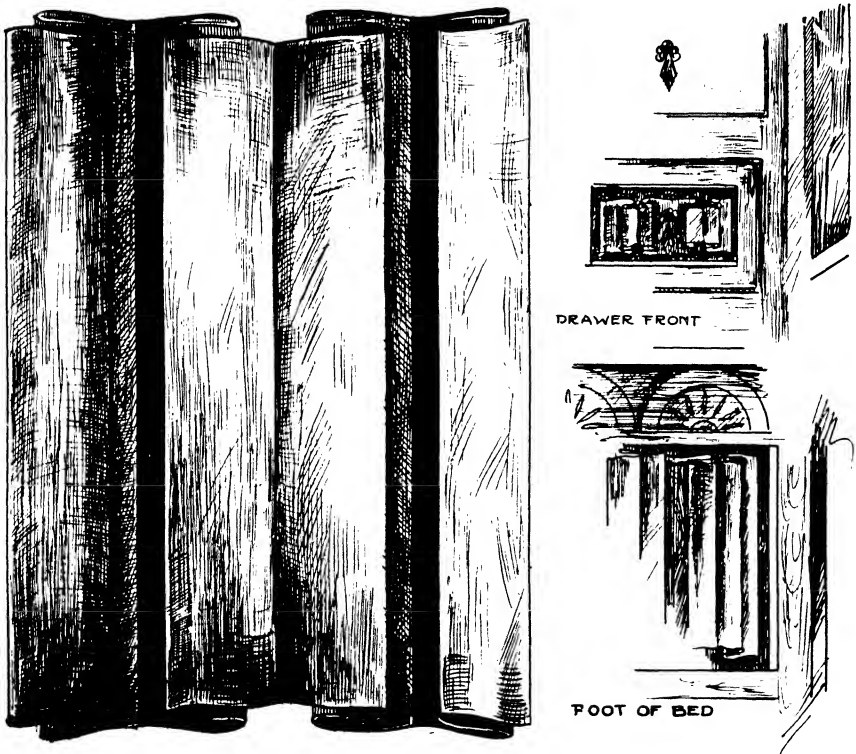


Fig. 61. Linenfold, a Tudor period design

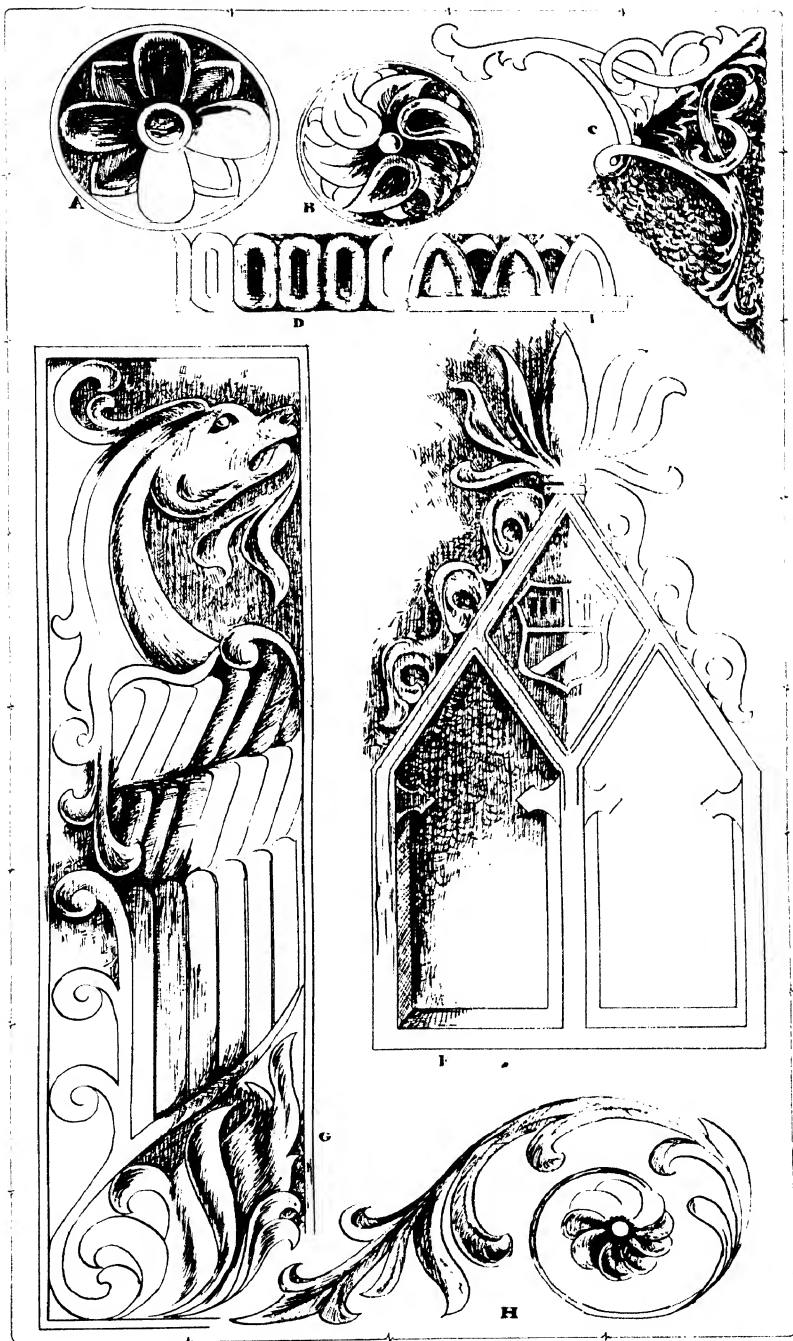


Fig. 62. Designs for relief carving

For a small project, this wastebasket, with its dominant Gothic note, works up very satisfactorily.

The Linenfold Design

The linenfold design is another that drew its inspiration directly from motifs having a religious background. The chalice or altar-cloth was doubtless the conventionalized form expressed

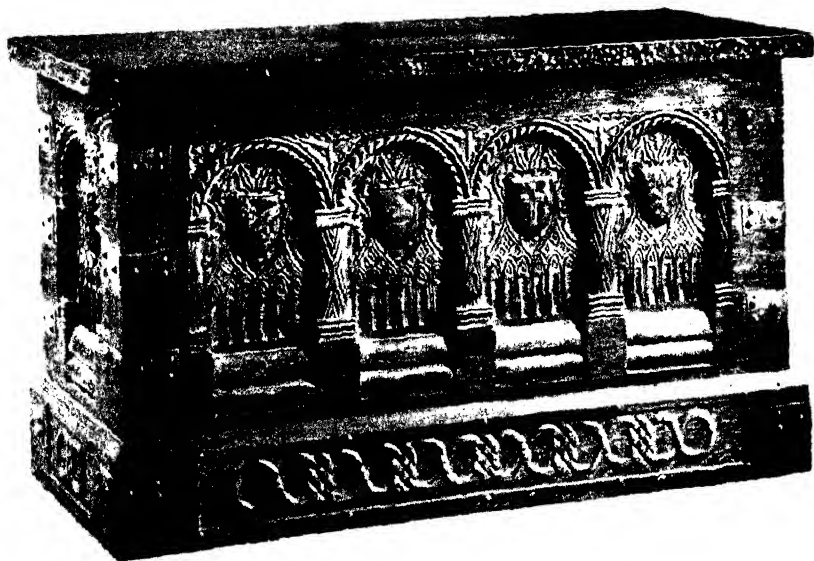


Fig. 63. A Gothic chest, fifteenth-century design

in the linenfold which made its appearance in England in the Tudor period or about the middle of the fifteenth century. Later this design was copied both in France and Italy. Figure 61 is an example of the linenfold design used on a drawer front and on the foot of a bed. Many variations of this design, of course, are possible. The linenfold lends itself more easily to machine carving than do most designs; in fact, the first designs in this form were doubtless made with joiners' router, and special molding planes, with a finish of carving at the ends and in the folds. It also lends itself to stucco work, in which it is frequently used.

Figure 62 presents some interesting and useful suggestive designs for relief carving.

Figure 63 is a Gothic chest made by a high-school student. This is a fifteenth-century design carved in oak, and is equipped with wrought-iron fittings. This chest has proved a popular proj-



Fig. 64. Arabesque design after the manner of Raphael

ect in advanced wood-carving classes in which they have been made with variations and in different sizes.

Figure 64 is an Arabesque design, developed toward the end of the fifteenth century, after the manner of Raphael. The piece of work shown was made by a seventeen-year-old school boy of

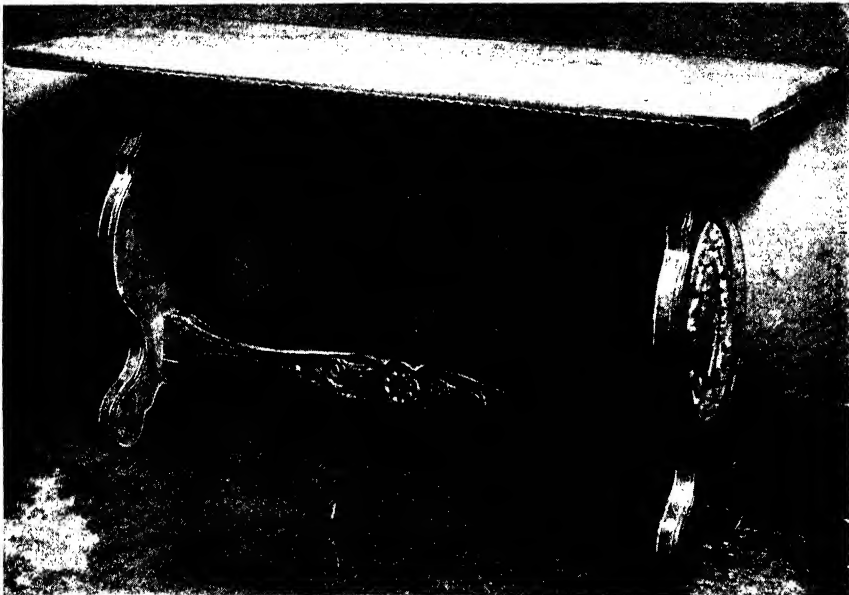


Fig. 65. An Italian Renaissance type table

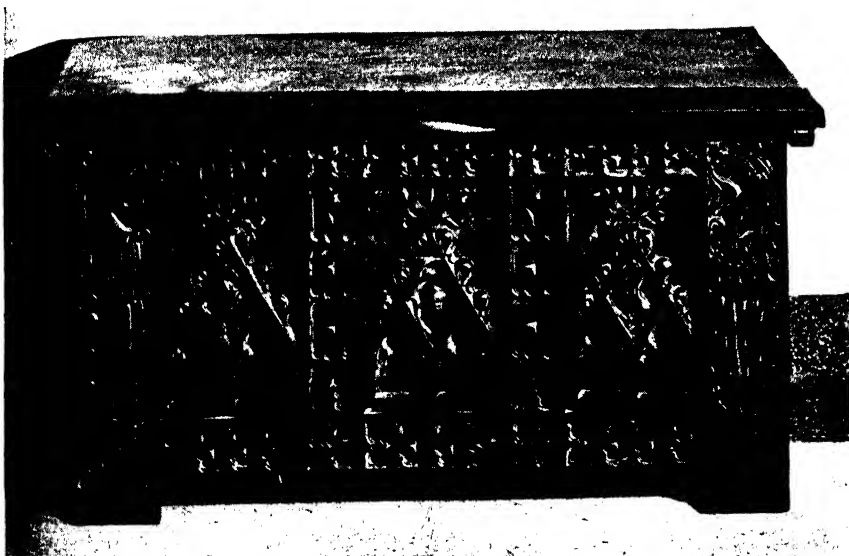


Fig. 66. A Gothic chest

Bristol, England. The design itself is the work of his instructor. The high relief in which this piece is worked throws shadows which serve to bring out the beauty of the work.

Figure 65 is an Italian Renaissance table, made and carved by a high-school student as a class project. It is simple and classic in its lines.

Figure 66 shows a rather simple form of Gothic chest. Enlarged designs for this chest are shown in F and G, Figure 62. Gothic designs lend themselves very well to chest ornamentation.¹

¹Designed and executed by Imperial Wood Carving Shops, Coral Gables, Florida.

Chapter VII

SELECTING A DESIGN

The most important part of the amateur's work is done when he has determined upon his design, and modified it to his needs. If he has a bad design, no skill of craftsmanship or beauty of finish or decoration can overcome this handicap.

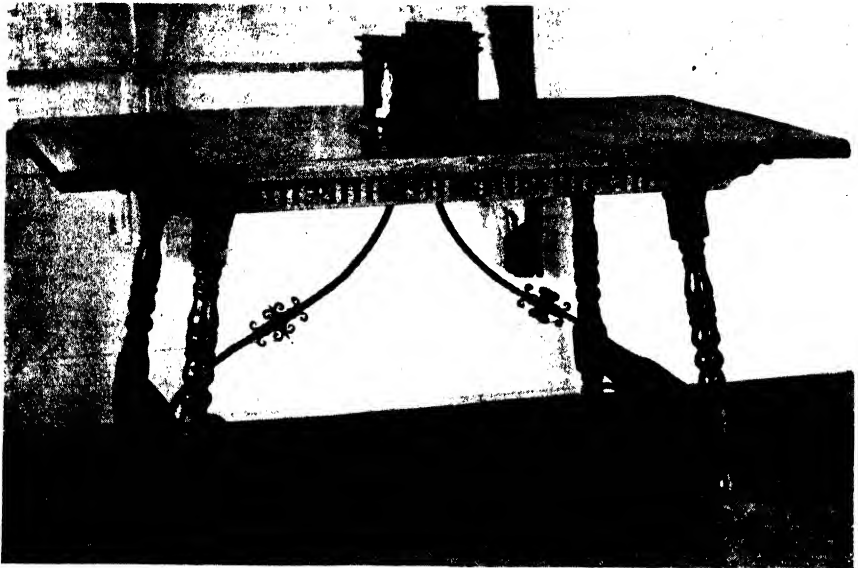


Fig. 67. A Spanish Renaissance dining table

Some years ago a friend rummaging through Europe sent the author two beautiful little statuettes made after classic Grecian models. "What use could be made of these?" became a question. The consideration of this matter for some months resulted at last in a book-end design after the manner of a Doric architectural doorway, as modified by Roman influence. This book end

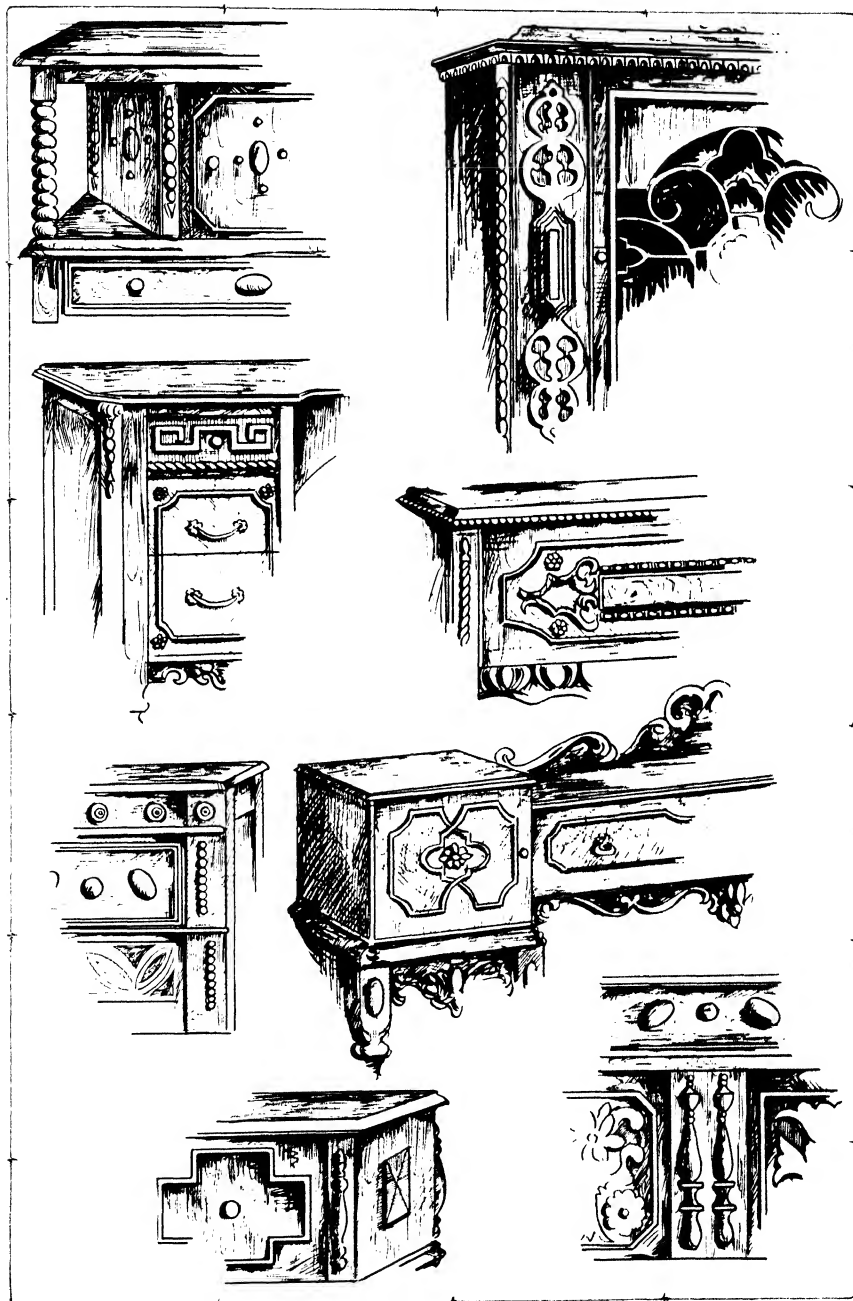


Fig. 68. Examples of machine decoration

as shown on the Spanish Renaissance table in Figure 67, is very pleasing and appropriate, but not at all original except in its adaption to a book end. The little figure looks well as used here because it is in its correct surroundings; it is in the period and in the age in which it belongs. Everything about this design, except the capstone, is in exact scale of a Doric arched doorway. This capstone is made small because the line of sight is above the object in this instance instead of below as in case of a building.

It sometimes pays to search for models or ideas which can be incorporated successfully into a desired design, as related in the following. The author met an amateur craftsman who searched for ten years, according to his statement, to find ideas that would help him in working out a dining table for his home. None that he saw pleased him, until at last he saw the Spanish Renaissance table shown in Figure 67, in which were carried out the ideas he had been seeking. This table is 34 inches wide by 6 feet long. The long overhanging ends add an unusual feature, and are necessary to be able to seat a person at the ends. A Spanish chair suitable for this type of dining table is shown in Figure 41. The Moorish element is a distinguishing feature in Spanish furniture, influenced somewhat by the earlier Roman domination of Spain. The use of iron was a strong factor in Moorish work. In that period the blacksmith was an artisan of first importance and achieved effects combining strength and beauty.

In Figure 68 are examples of decoration that are the direct result of the age of machine production. These decorations are not a natural part of the pieces on which they are applied. The ornaments are machine made, of wood or a composition material, and are glued or bradded to the piece they are supposed to decorate. In architecture, or in some forms of built-in furniture, these forms of decoration are not in such bad taste as they are on the articles of furniture by which one is daily surrounded, and which are designed to be moved about from one environment to another.

Figure 69 has been added as a design especially suited to the piece on which it was used. This is a seaman's chest, and is the work of a senior-high-school student. It is made of oak. It is not as perfect nor as interesting as some pieces that have been carved

from designs supplied by old museum pieces made by master workmen but it does represent what a young American can do when he turns to making a sea chest. Attention is called to the large sea shell which is carved on the ends, and which is so worked out as to form the handles of the chest.



Fig. 69. A seaman's chest by a senior-high-school student

Wood carving is an *enrichment* of construction; not an afterthought, but an integral part of the whole. Problems of ornaments and problems of construction must be solved together. Note in the sea chest how evident it is that this is true.

Problems of Design

From a purely elementary standpoint, and reduced to the simplest form of statement, there are three major esthetic principles — rhythm, balance, and harmony. The first leads the eye through all the various details of a design; the second imparts to a design equilibrium or repose; and the third combines the various elements employed into a common factor of interest.

Taste and discretion in art are elusive things which defy for-

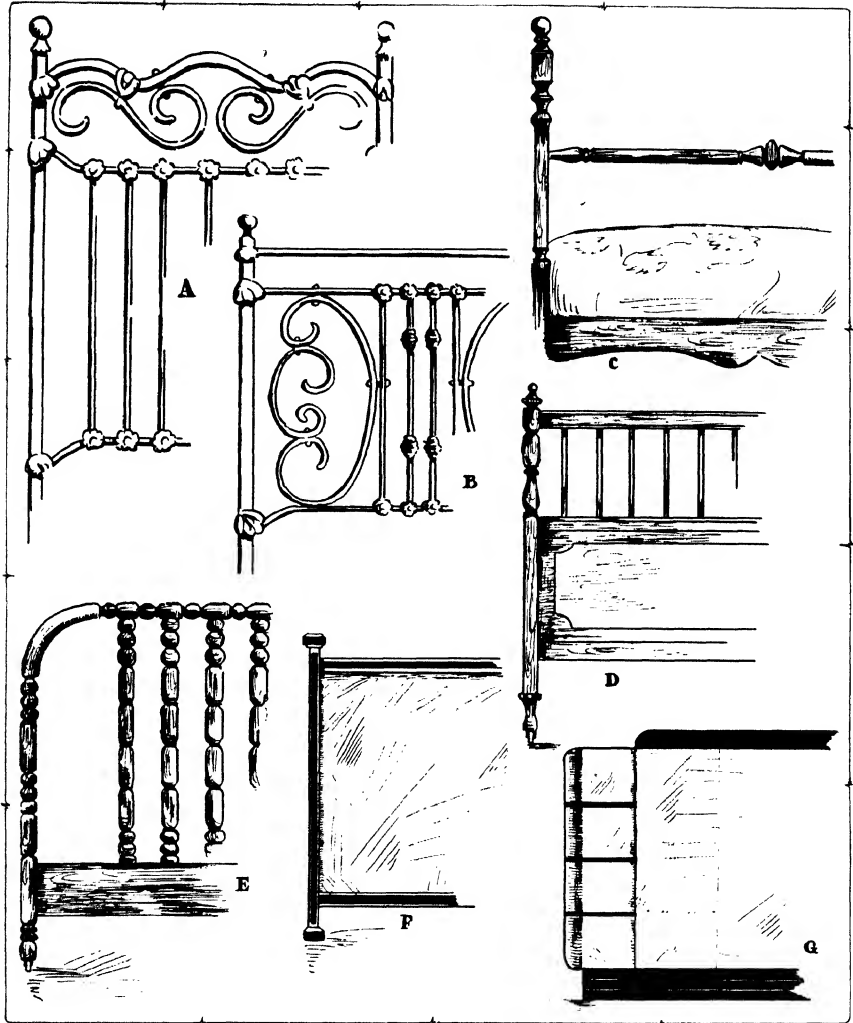


Fig. 70. Growth of metal bed design

mation into exact statement, yet for our guidance there are certain principles which will aid us in developing the quality of appreciation. These may be grouped under four heads, as follows:

1. The material of which an object is made as well as the use to which it is to be put should determine its form.
2. The structure of an object must control its design.

3. Ornament, if used upon an article, should emphasize its structure.

4. When an ornament is derived from nature it must be conventionalized.

As an example of some of the above principles, let us take into consideration, for instance, the metal bed shown in Figure 70. Early designs of metal beds usually were made to follow most elaborate floral motifs as shown in A and B. Iron as a material, however, does not at all suggest its use in running vines, wreaths, and flowers. When the public taste arose to a place where it would no longer tolerate beds made of metal in such incongruous designs, wooden beds began to come back into popular favor. Soon thereafter metal beds appeared in clever imitations of wooden beds, as shown in C, D, and E. These metal beds are not only made in imitation of the popular wooden beds, but also after the old masters of furniture design, known as *period styles*, and in any *wood* finish, as walnut, mahogany, bird's-eye maple, etc. It is only by thumping these beds that one discovers that they are not actually wood. More recently, makers of metal beds are adapting the design of the bed to the material of which it is made, as in examples F and G. These modern types of metal beds are beautiful, because the designs are now for the first time adapted to the material from which they were made — they are frankly *metal* beds, meeting in the simplest and most direct way the structural needs of a bed, and in designs adapted to the material use. These beds suggest in every line the *strength* of iron which is its dominant quality as a material. The structural lines of the beds, and such ornament as is used, tend to further develop the motif suggested by the material and the purpose.

The earnest student who undertakes wood carving soon finds that it leads him into a study of other of the arts. Such a study is one of the best means of training the mind, exercising correct judgment, quickening the faculty of observation, and obtaining a fund of practical and useful information that has much carry-over value into vocational and avocational life. There is a constant demand at all times that we shall exercise judgment in our choice of things, as to their fitness, attractiveness, and harmony with environment. An understanding of some of the basic prin-

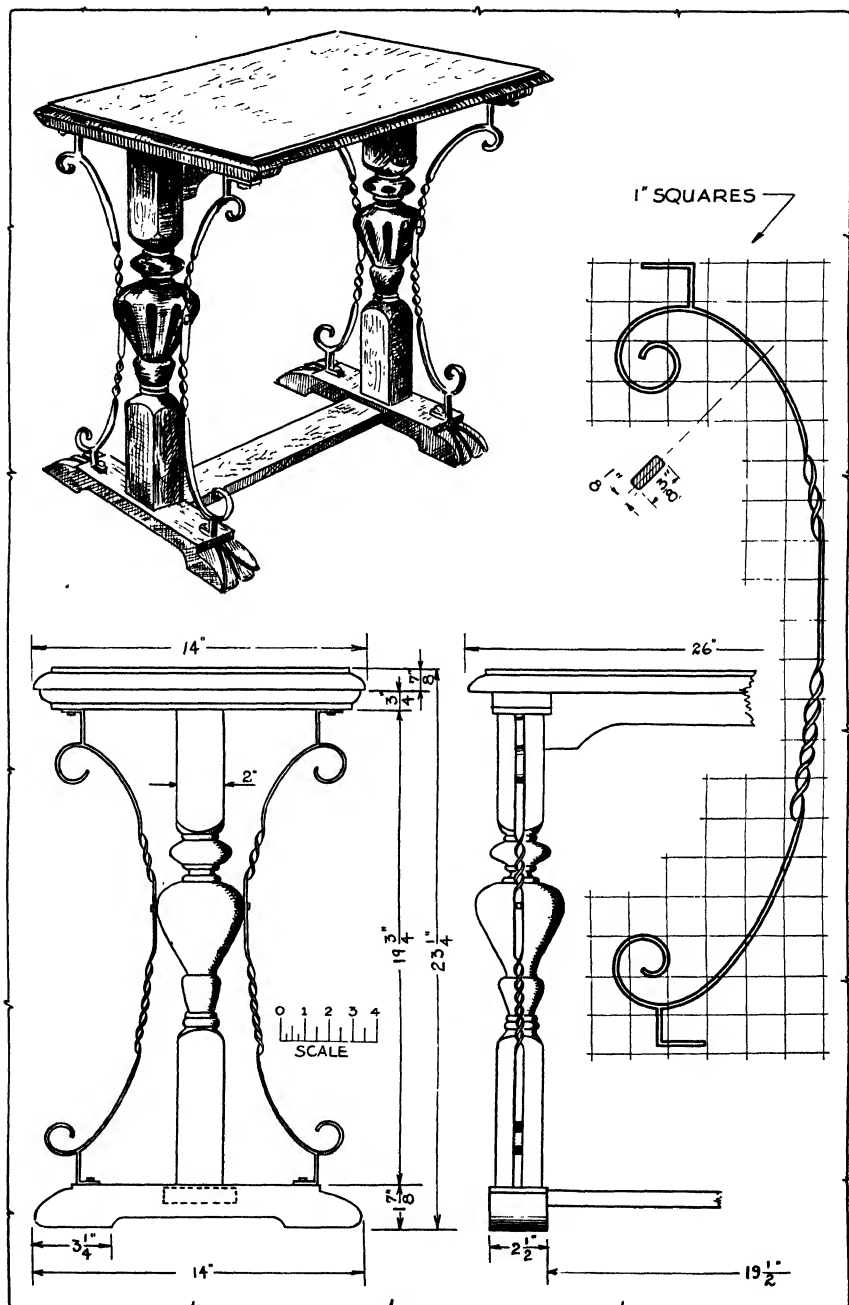


Fig. 71. Renaissance-period Spanish-type table

ciples of art, especially some work in one of the arts, tends to give us definite standards upon which to base selections involving matters of taste. As public taste improves, increasing demands are made upon manufacturers for better-designed goods and a higher quality of workmanship and better materials. Those nations which have been the leaders of art are also the leaders in commerce and industry.

The race between manufacturers for supremacy in their lines, is a race for better-designed models and more artistic production. In all of this the creative artist plays an important part.

Renaissance-Period Spanish-Type Table

The carving on this table is similar to that on the lamp in Figure 30. The foot shape and carving may be made the same as the desk details shown in Figure 45c. A somewhat different foot carving is shown in the drawing which works out into a rather unique foot. The student may exercise his own ingenuity in developing a clever foot model.

Ironwork is common to Spanish furniture. The ironwork on this table is made from a $\frac{3}{16}$ by $\frac{3}{8}$ -in. piece, and is finished in dull black.

Grecian-Type Wall Lamp

This is a portable bracket lamp. It may be made of soft poplar, and should be stained and finished dull black to appear like iron. A dull bronze effect also may be simulated.

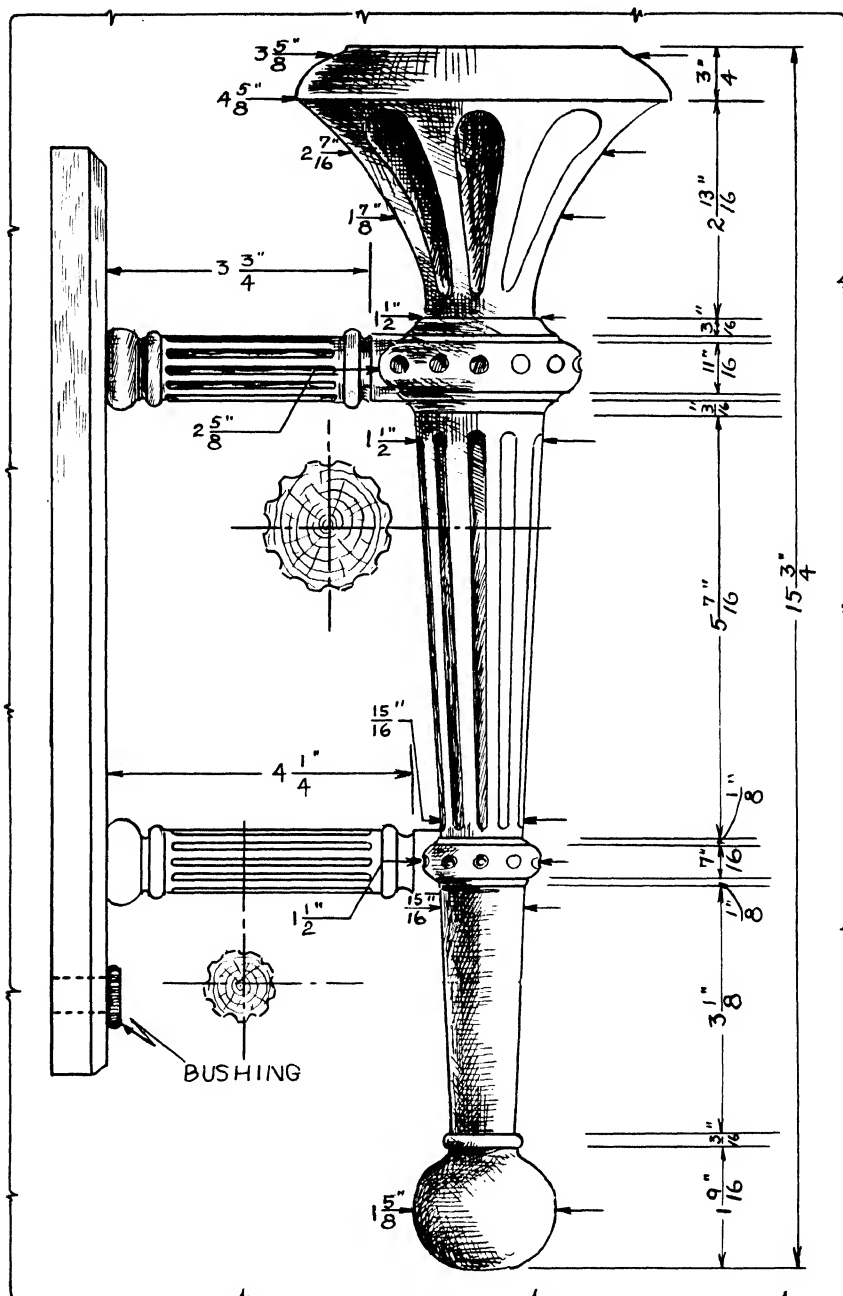


Fig. 72. Grecian-type wall lamp

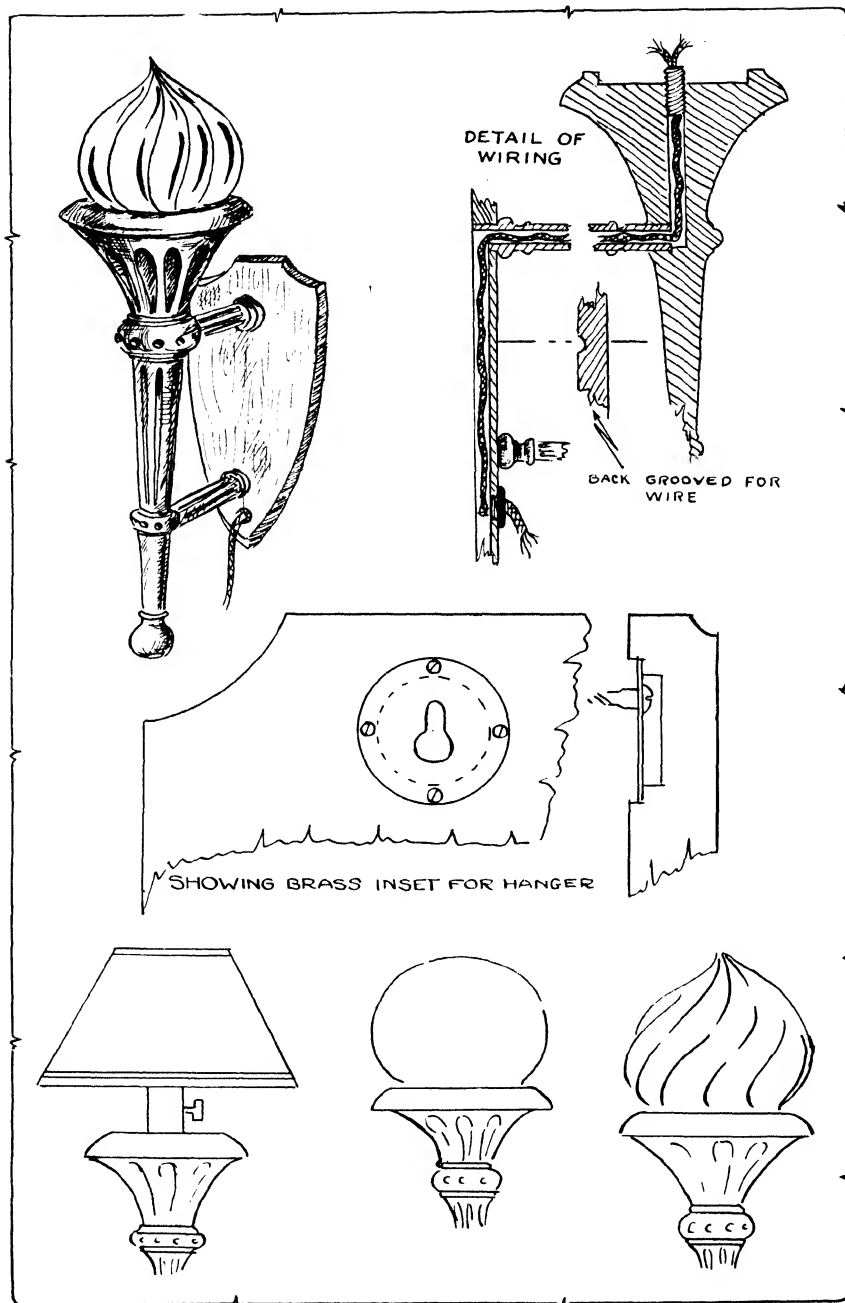


Fig. 73. Details of Grecian-type wall lamp

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